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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY
(INCORPORATED).

VOL. XXIII.

CHICAGO, ILLINOIS, APRIL 15, 1905.

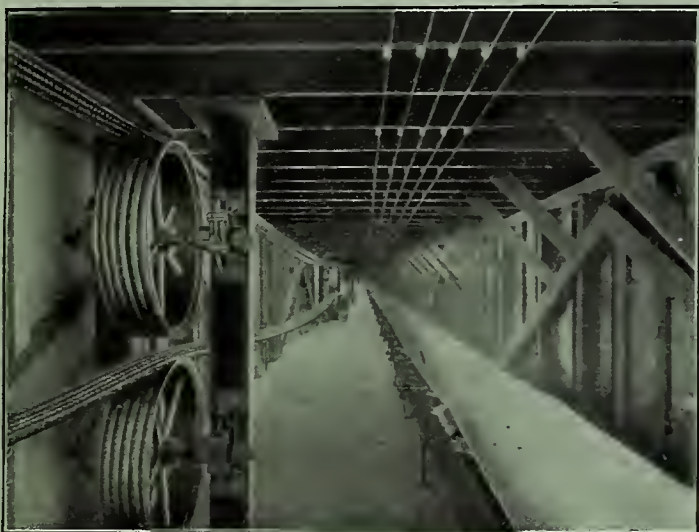
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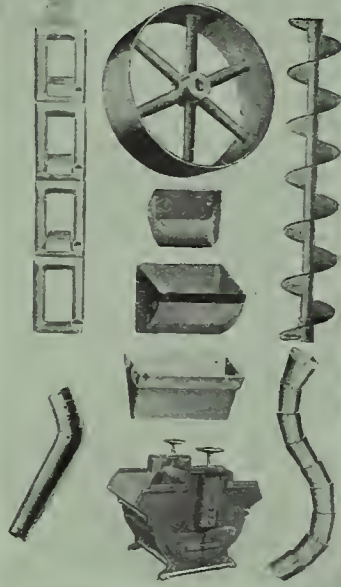
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INTERCHANGEABLE WITH OTHER KINDS

But very much **BETTER** in wearing qualities, as cold rolled steel is harder and **TOUGHER** than when softened in the furnace and dropped into shape. **COSTS NO MORE.** We make all kinds of **MACHINERY FOR GRAIN ELEVATORS.** We send Pinch Bars on trial. Our Sprocket Wheels and Chain are the best. We also make Pulleys, Shafting, Hangers, Car-loading Spouts, Elevator Buckets, etc. Write for Catalogue.

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**Elevator
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**THE
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The Gutta Percha
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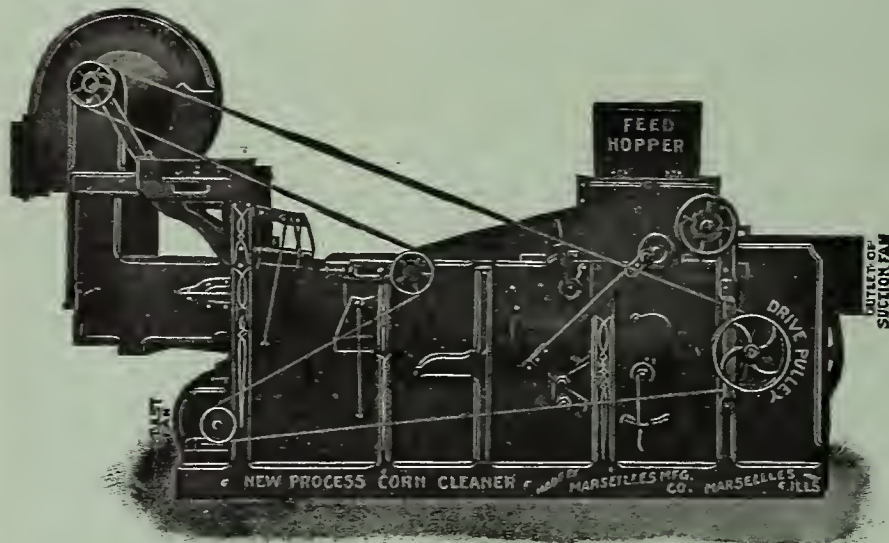
Corn Shellers? Do We Make 'Em?

*Well, just ask us for a copy
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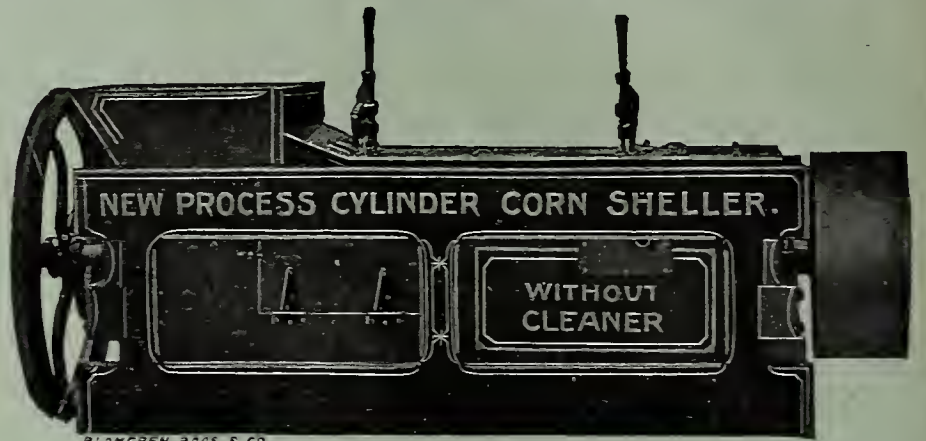
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Ours is the Place to Buy
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Reliable Goods—Honest Prices

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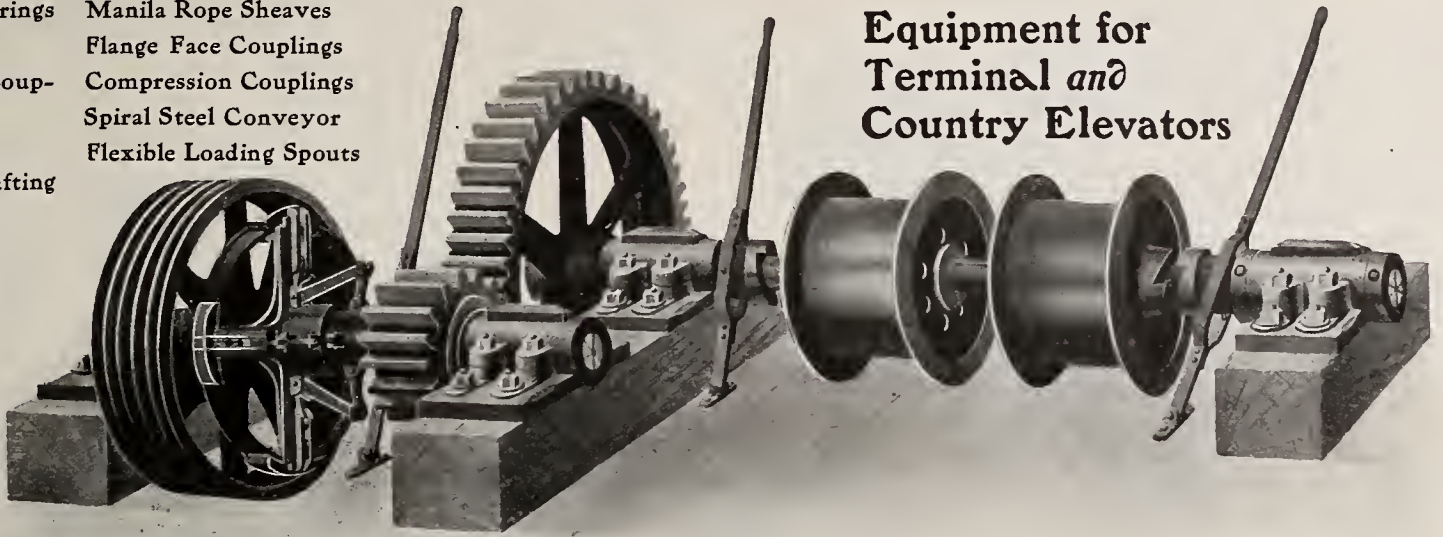
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Absolutely Reliable
Quality Guaranteed
Strictly Pure.
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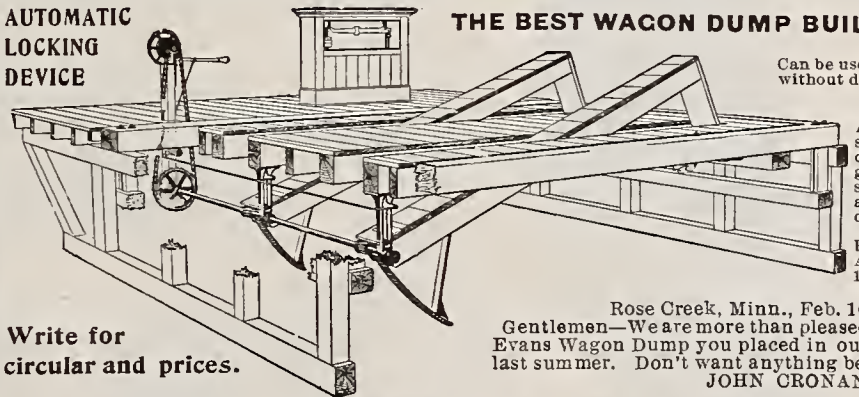
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THE BEST WAGON DUMP BUILT

Can be used with and
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Absolute
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durability.

Patented
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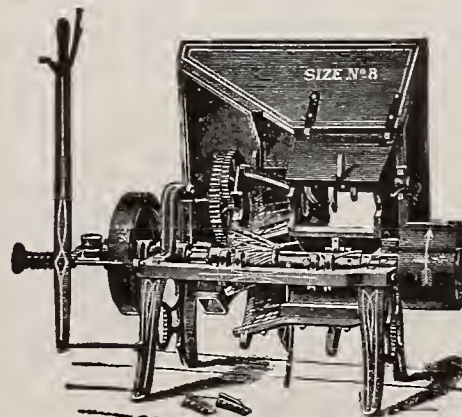
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It CRUSHES ear corn (with or without
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Has CONICAL shaped GRINDERS, DIF-
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Circular sent for the asking.

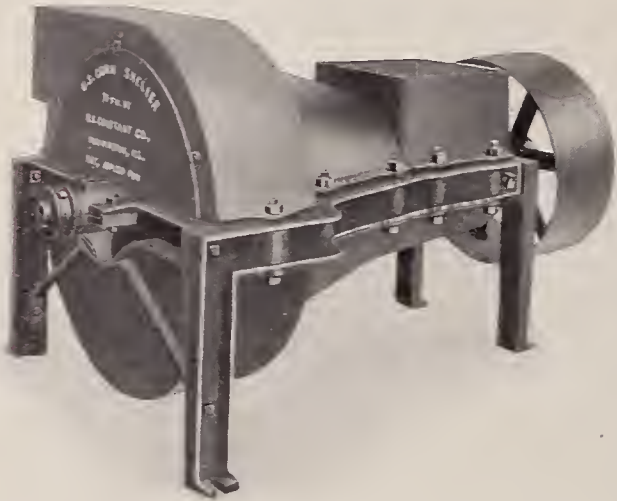
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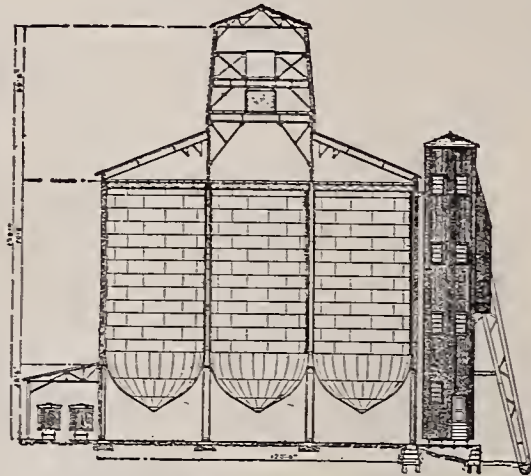
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Water and Oil Tanks,
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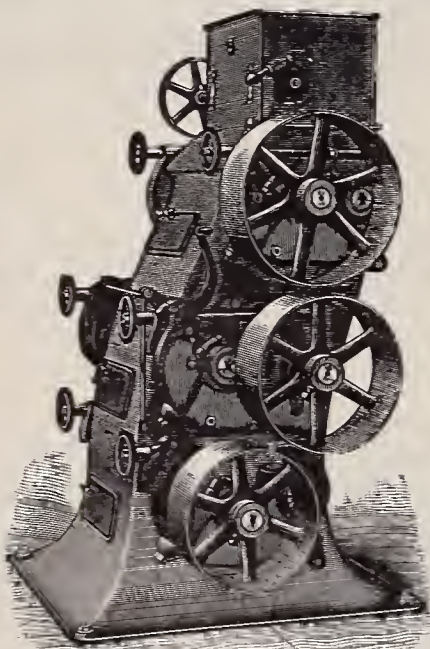
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UTILIZE YOUR POWER
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— IT PAYS —

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...And...

PORTABLE FRENCH BUHR MILLS,
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ROPE DRIVES, GEARING, CORN SHELLERS and CLEANERS, GRAIN CLEANERS.

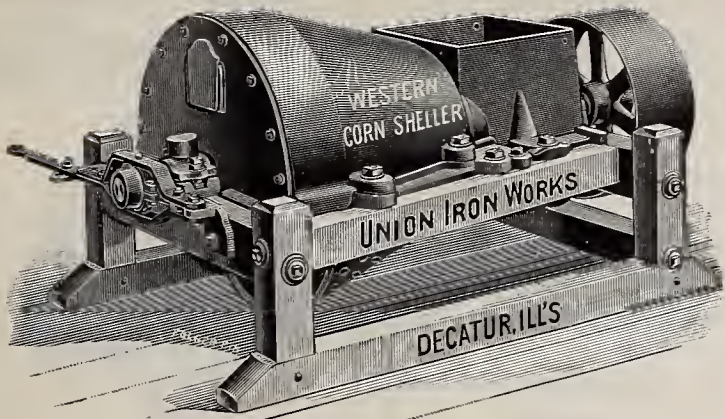
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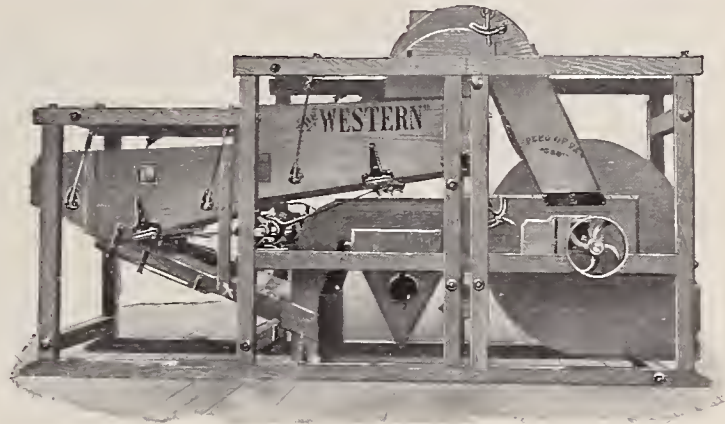
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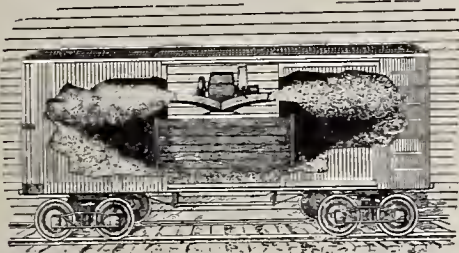
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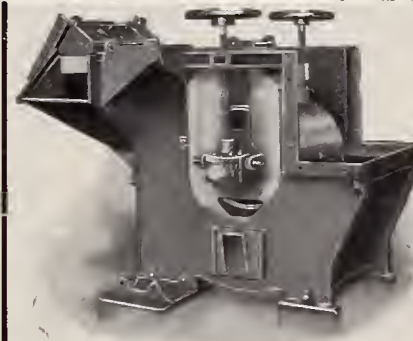
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NON-CHOKING.

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SCIENTIFIC IN SIMPLICITY EFFICIENCY UNRIVALED IN

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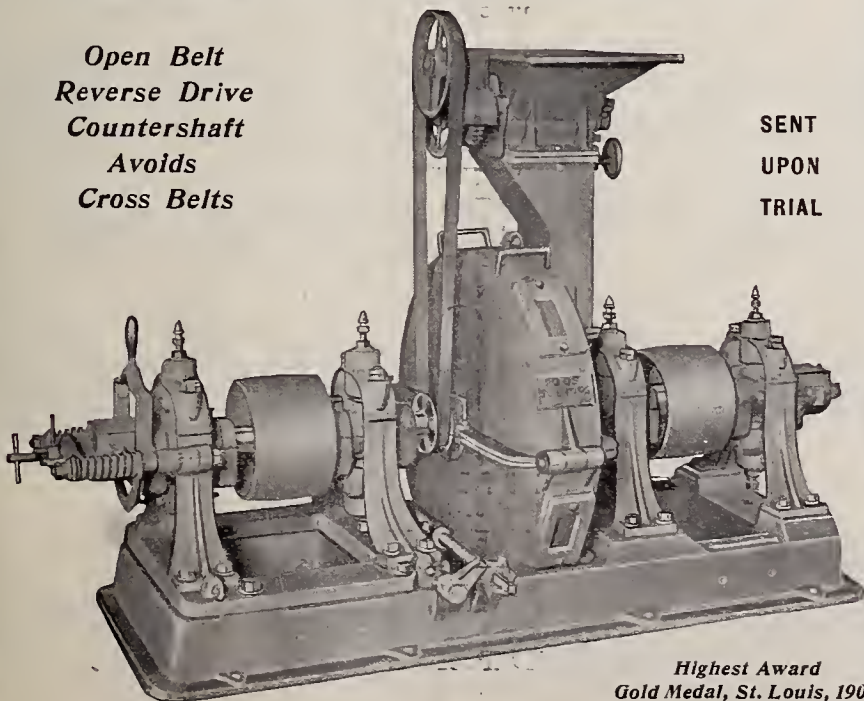
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Less Power AND More Work

Interchangeable ring oiling bearings, quick release, automatic relief
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Grinds ear corn, chop feed, bran, offal, cracks corn, etc., **FAST,**
FINE GRINDING.

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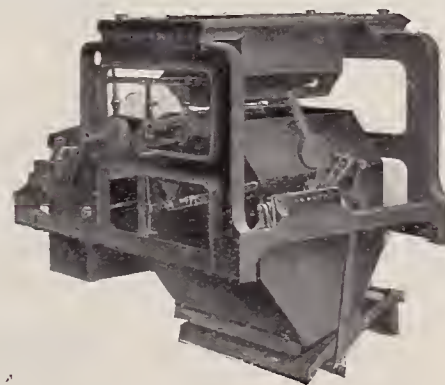
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Gold Medal, St. Louis, 1904

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Grain Accurately
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Weights recorded.

Automatic,
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Insures Mills, Elevators, Warehouses
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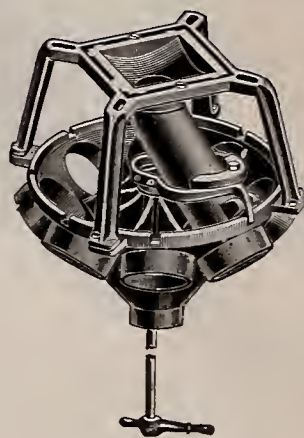
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SAVED TO MEMBERS
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Suitable for Mills, Elevators, Ear Corn, Cobs,
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6-inch, 8 ducts.

NON-MIXING.

You may buy all kinds of machinery for distributing your grain as it is elevated, but you'll never buy right until you have purchased

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Why? Because all others mix grain in distribution. The Hall not only prevents grain being mixed, but signals you automatically when a bin is full, prevents choking of the back leg and fills the bins to their full capacity, and all without worry or drudgery.

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It leaves the Wheat in Perfect Condition for the Rolls. Will also dry
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Not an Experiment. In successful use 25 years drying

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ALSO SAND, COAL DUST, GRAPHITE AND CLAY AND ORE OF ALL KINDS!

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Thousands in daily use by the most prominent railroads, elevators, mills and grain dealers

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They Are the Best

Fairbanks-Morse Gasoline Engine is the most economical power for Elevator or Mill use. By using it one man can often run the whole elevator.

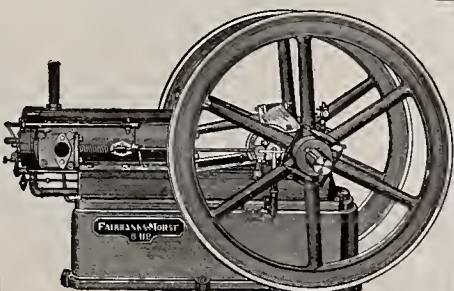
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For Drying Damp and Un-
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Dries evenly, rapidly, automatically
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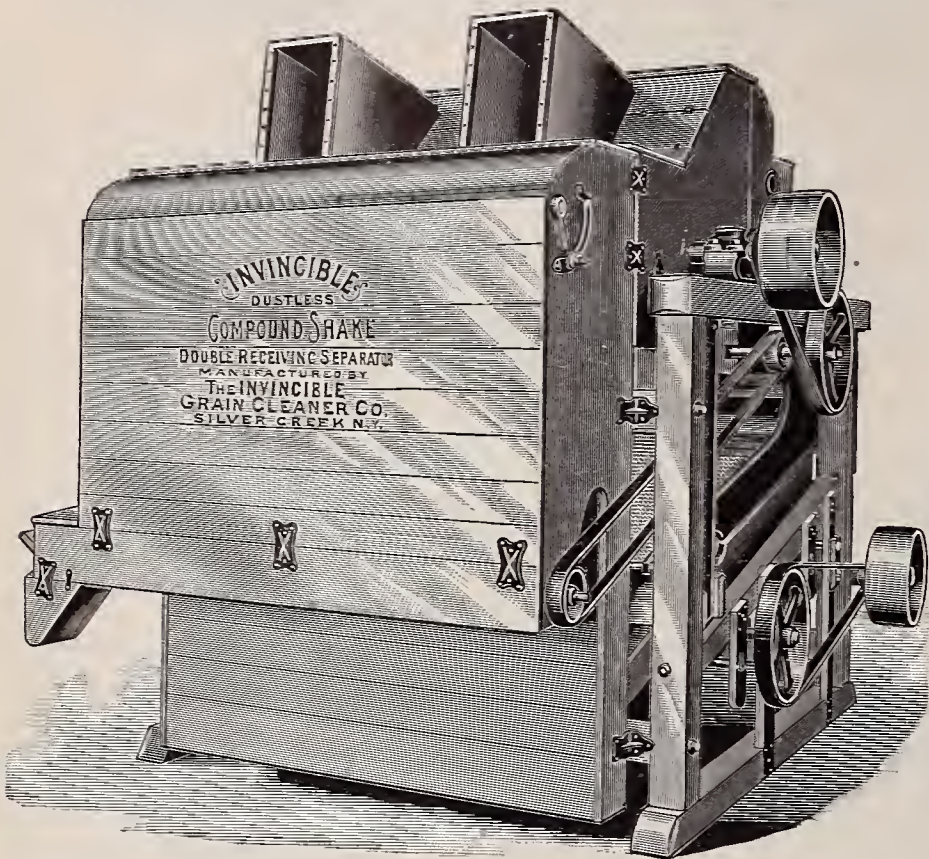
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No shake, no tremble, run perfectly steady. Can be placed anywhere in the elevator.
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Gives the best results. Holds buckets firmly and securely, and resists heaviest strains. Will do 50% more work than the best rubber belt, and will outlast three of the same. Its record for nineteen years handling grain, stone, sand, ore, coal and clay substantiates our claim. Belts warranted uniform throughout. Made of any width up to 100 inches, and any length up to one mile.

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Will convince you that we are perfectly justified in claiming that the

Monarch Attrition Mill

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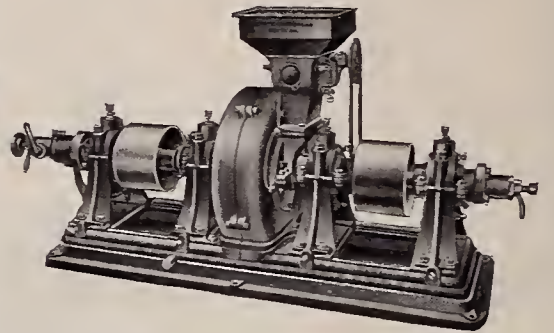
We have a model shop, equipped with modern machinery and manned by competent workmen. Our facilities being the best, it is but natural that our output should be beyond competition.

MONARCH MILLS

have Phosphor-bronze interchangeable bearings; cable-chain oilers; double movable base; safety spring; quick release; relief spring; special adjust-

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Every grain elevator owner knows that if elevator legs would not choke down the operating expenses would be materially cheapened and the working capacity of the plant increased.

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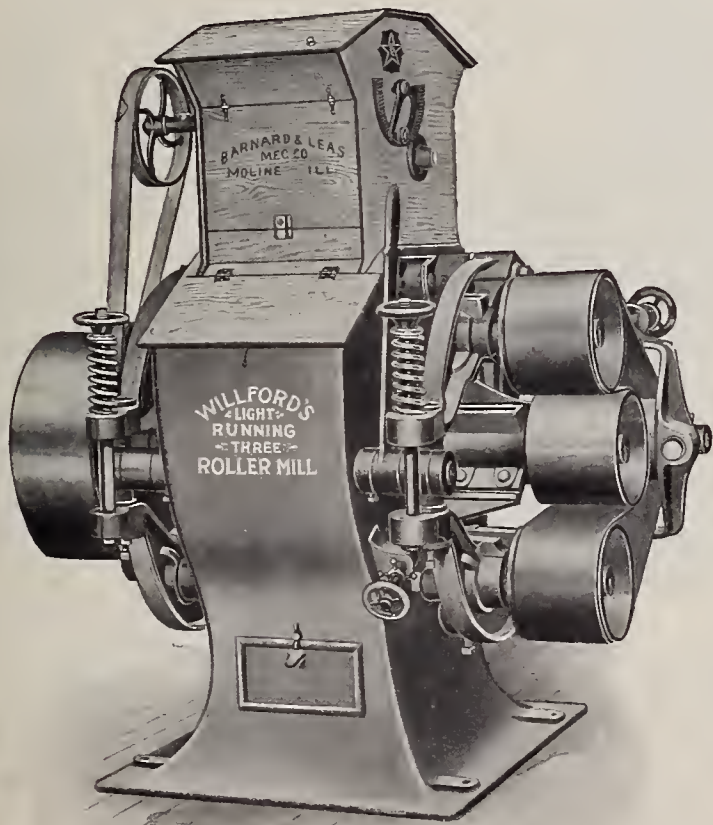
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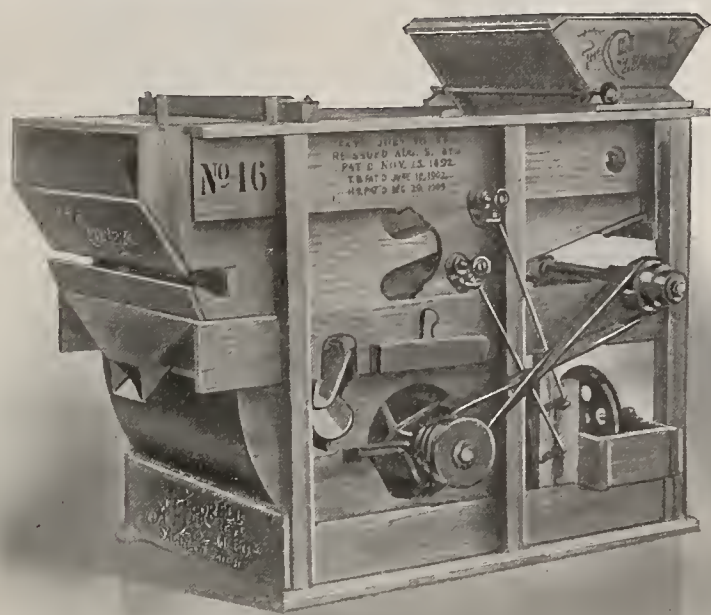
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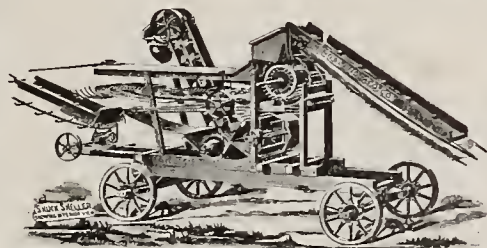
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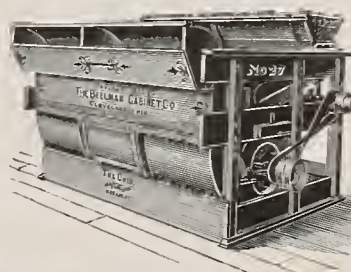
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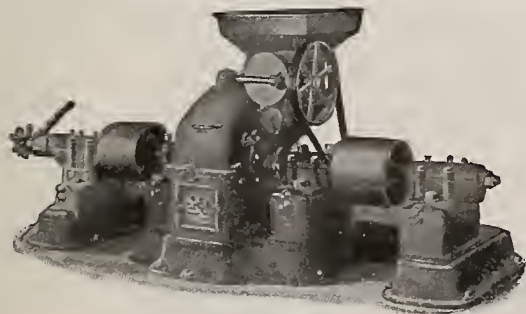
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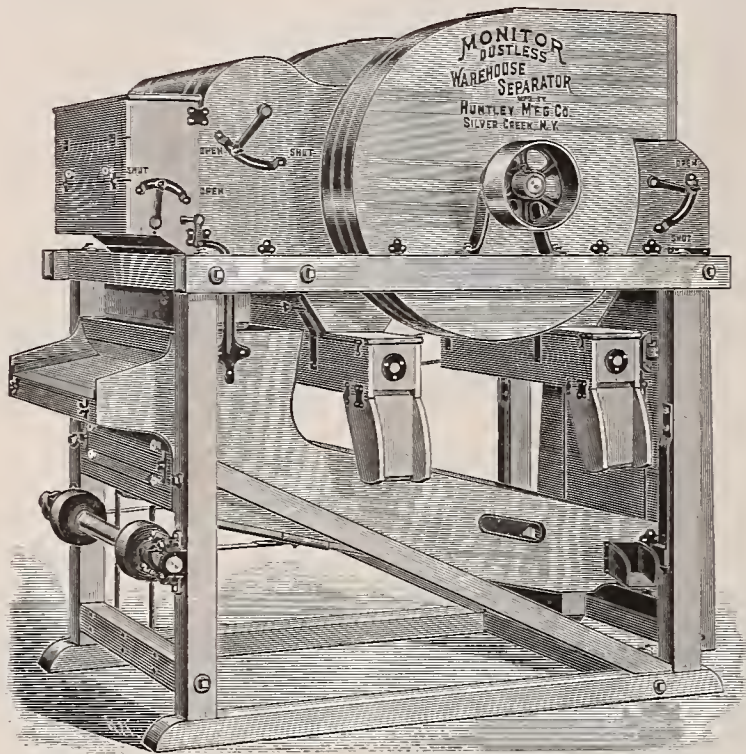
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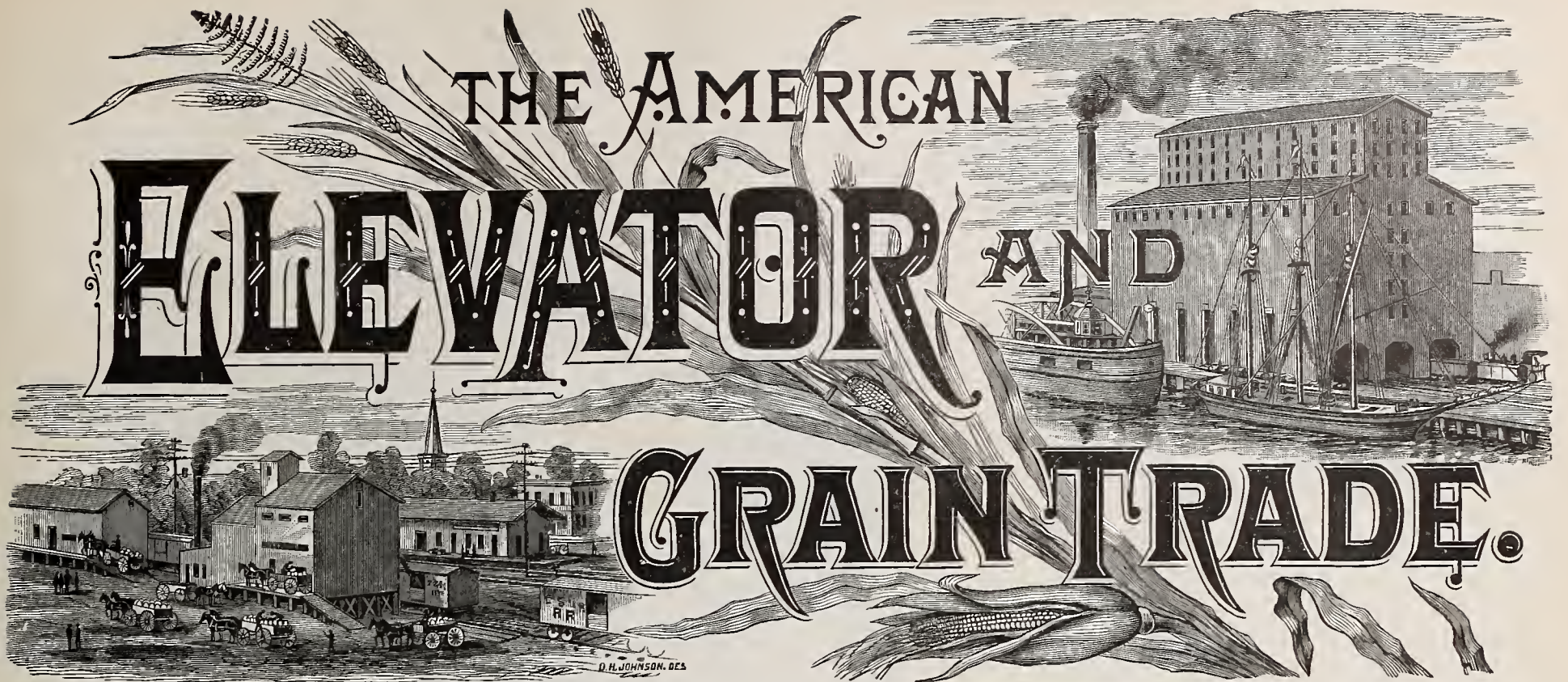
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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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[For the "American Elevator and Grain Trade."]
**N. Y. C. & H. R. R. R. ELEVATOR
AT WEEHAWKEN, N. J.**

BY J. C. IRWIN.

For many years the New York Central & Hudson River Railroad has had the largest grain elevator capacity of any railroad on New York Harbor. The elevator at Sixtieth Street yard, New York City, rebuilt in 1890, has a capacity of 1,500,000 bushels, and the West Shore elevator on Pier 8, at Weehawken, built in 1883, has a capacity of 1,200,000 bushels. The completion of the new 2,000,000-bushel fireproof elevator on Pier 7, Weehawken, increases the New York Central elevator capacity 75 per cent, and gives this railroad a capacity of 4,700,000 bushels, which is greater than that controlled by all other railroads on the harbor combined.

A better idea of the meaning of 2,000,000 bushels may be had

from the statement that it would require approximately 1,500 modern 80,000-pound capacity box cars of grain to fill the elevator and that this number of cars would make up a string twelve miles long. The receiving capacity of the elevator is twenty-one cars, or 28,000 bushels, per hour, which would amount to about 500 cars, or 670,000 bushels, in 24 hours.

The main features of this new elevator are that it is absolutely fireproof, being built of brick, concrete and steel; it is available for use by deep-

draught vessels, having 32 feet of water at mean low tide in the slips on both sides of the elevator; it is designed for quick handling, and is operated entirely by electricity furnished by a power station 1,000 feet distant. It is fully equipped with dust collectors by which the dust is picked up by suction and disposed of outside of the building. Rope drives are used for the machinery to avoid electric sparks from the use of belts, and the motors are all enclosed in dustproof cases, to the interior of which fresh air is freely admitted

eight double-track hoppers, extending from the outside rail of each track to the foot of the elevator legs. The cars are unloaded by machine shovels guided by hand. After being dumped into the hoppers, the grain is elevated to the garner by means of continuous belt elevators, with sheet iron buckets extending from the bottom of the hoppers on the basement floor up to the top of the garner, which are located on the next to the top floor of the cupola. From the garner, which are twenty-three in number, the grain is delivered into the

scale hoppers on the floor below, where it is weighed before being distributed into the various bins. There are in all twenty-three scale hoppers, eight designed for receiving, each of which has a capacity of 2,000 bushels, and fifteen designed for shipping, transfer and cleaning, each of which has a capacity of 800 bushels. From the scale hoppers the grain is delivered to a belt conveyor supplied with two trippers, on the floor below,



NEW YORK CENTRAL & HUDSON RIVER RAILROAD ELEVATORS AT WEEHAWKEN, N. J.

through ducts from the exterior of the building. The main building is 101 feet 6 inches wide by 354 feet 2 inches long and 200 feet 8 inches high from the top of the foundation masonry to the ridge of the cupola roof. Two tracks pass through the building and the tail tracks extend on to the dock so that cars can be shoved through the building.

A short description of the method of operation may lead to a better understanding of the construction. The grain is delivered from the cars into

and by means of this conveyor it is distributed to a series of forty trolley spouts, by means of which it can be delivered directly into any bin desired. The bins along the exterior are divided into two sets, vertically, the upper set being used for shipping bins for loading into boats, and the lower set being used for storage. The boots on the exterior of the building connecting with the bottom of the shipping bins enable those bins to be emptied directly into the boats.

For the purpose of unloading boats into the ele-

vator, a marine leg, enclosed in the steel tower, is provided near one end of the building. This delivers into the marine garner, from which the grain can be delivered wherever desired. In order to transfer from one bin to another, there are eight cross belt conveyors under the first floor.

For cleaning the grain, fourteen compound shake separators, each with a capacity of 5,500 bushels per hour, are provided.

A car puller, capable of handling twenty loaded cars, is so arranged that it can handle cars on either track.

In the construction of this elevator the foundations were particularly expensive, as the river mud and silt runs to a depth of from 75 to 110 feet below mean low water, and under this is fine sand running for a depth of 88 to 114 feet below mean low water before reaching hard sand bottom. It was found necessary to drive piles an average depth of 116 feet. The piles were spliced by the use of a dowel 1½ inches by 18 inches in the center of the butt joint and around the outside six 3x6-inch white oak strips 16 feet long, each secured by 10-inch spike. The upper sections of the piles are from 60 to 75 feet long, varying in length so that the splices will not come in the same horizontal plane.

In building the foundation a space about 126 feet wide and 390 feet long was dredged to a depth of 8 feet below mean low water. The 3,842 piles forming the foundation were then driven and cut off at a uniform level of three inches below mean low water. The substructure, including the exterior concrete bulkhead wall, was entirely enclosed by 12x12-inch sheet piling 50 feet long, formed with tongues and grooves by 2x4-inch strips spiked to the timbers. The interior space sur-

round the steel structure are arranged with three rows of piles to each set of columns. Embedded in the concrete over the heads of the piles are two courses of steel rails, one running transversely and the other longitudinally, designed to distribute the

all the bins, the side walls of the cupola and the roof of the cupola are all constructed of tile, supported by the steel structure.

The interior steel frame of the building is made up of eight rows of 26 columns each, spaced 14



MACHINERY FLOOR, SHOWING DRIVING WHEEL ON ELEVATOR HEADSHAFT AND ELEVATOR CASING.

load and take up any tensile stresses that may develop. The upper portion of the concrete bed is formed in inverted arches, brought up to the base of the column foundations, the interior space be-

feet centers. The middle four rows of columns are extended to the top of the cupola, which is 44 feet 2 inches over all and 96 feet high above the main eaves, and extends the full length of the building. Its walls are of 8-inch partition tile and it is divided into five stories, used for machinery, garner, scales, motors and distribution of the grain.

The floors, with the exception of the bin floor, are of concrete and expanded metal construction. 4 inches thick, the lower portion consisting of 1:3:6 Portland cement concrete made with ¾-inch stone, and the top finish composed of 1:1 cement mortar.

The bin floor and also the roof over bins and cupola are of 3-inch book tile, laid on T-irons, the bin floor tile being also covered with cement mortar. Over the book tile forming the roofs is laid a pitch and gravel roofing composed of five plies of No. 28 felt cemented together with best quality of American straight-run coal-tar pitch, coated with natural Trinidad asphalt covered with white beach gravel.

The first floor columns and the exterior columns of the cupola are encased with 3-inch book tile, covered with cement mortar. The foremen's and weighmaster's offices and the switchboard room are partitioned off with 4-inch partition tile and have ceilings of 3-inch book tile.

The large doorways for cars are equipped with Kinnear Patent Steel Doors, and all other doors and windows have fire doors of steel plate.

The building is completely piped for fire service, and has 48 outlets, each equipped with hose on a swinging rack.

The bins are rectangular and are 72 feet 6 inches deep from the top of their hopper bottoms to the bin floor. They are formed of steel plates 5 feet deep of one piece for the entire width of the bin and the metal varies in thickness from 5-16 inch in the lower courses to 3-16 inch in the upper courses. The bin capacity is made up as follows:

	Bushels.
59 regular bins, 11,700 bushels each.....	690,300
138 one-half bins, 5,850 bushels each.....	807,300
46 bins each side of legs, 4,500 bushels each	216,000
23 bins under shipping bins, 4,900 bushels each	112,700
23 shipping bins, 5,200 bushels each.....	119,600

Total bin capacity1,945,900

Including the capacity of garner and scale hoppers, the total capacity is brought up to 2,010,700 bushels.



BIN FLOOR, N. Y. C. & H. R. R. R. ELEVATOR, SHOWING TROLLEY SPOUTING.

rounding the piles was filled with sand up to a level of one foot below mean low water and the surface was then covered with a course of 1:3:5 Portland cement concrete of a minimum thickness of three feet. The concrete also forms a continuous wall around the entire four sides of the pier. The piles supporting the rows of columns which

tween the column foundations being filled with sand to support the concrete floor.

The main walls of the building are of North River brick laid in cement mortar to a height of 32 feet above foundations, and above that point in lime mortar. The brick walls extend up to the tops of the bins and above that point the roofs of

The garner and scale hoppers are also built of steel plate, the bottoms being 5-16 inch thick and the walls $\frac{1}{4}$ inch thick.

There are 24 elevator legs, containing continuous bucket elevators, used as follows: Eight receiving elevators for unloading cars, eight shipping elevators for loading purposes, seven transfer elevators for transfer and cleaning purposes, one elevator for screenings, and one marine elevator on the exterior of the building.

A brick stair tower on the land end of the build-

received one additional coat and the exterior work two additional coats, the first being red lead and the second white lead.

The machinery is driven by forty-three motors, all of three-phase induction type, without brushes, and designed to operate on a multiphase alternating current circuit of twenty-five cycles per second, with a pressure of 550 volts. Of these motors, twenty-three, of a capacity of 100 horsepower each, are used for the operation of the receiving, shipping, transfer and cleaning elevators; two, with a

the marine shop where the floating equipment is repaired. It is an excellent example of modern power station design, both in interior arrangements and in the building itself, which presents a very attractive appearance. There are four boilers of 500 horsepower each, set in pairs, one pair on each side of the stack, and fitted with Roney Mechanical Stokers. Coal is received from cars on a trestle alongside the boiler room, and after passing through a hopper into a crusher, is conveyed mechanically to bins over the boiler room, from which it is fed to the stokers by gravity. The ashes are also disposed of mechanically by being picked up and elevated with conveyors and deposited in bins overhead at an elevation from which they can be delivered into cars.

There are four three-phase alternating current generators, all driven by Westinghouse-Corliss Engines. Two of these generators have a capacity of 750 kilowatts each, and furnish current at 600 volts with a frequency of 25 cycles for power purposes. The other two have a capacity of 400 kilowatts each and furnish current at 2,300 volts, with a frequency of 60 cycles for lighting.

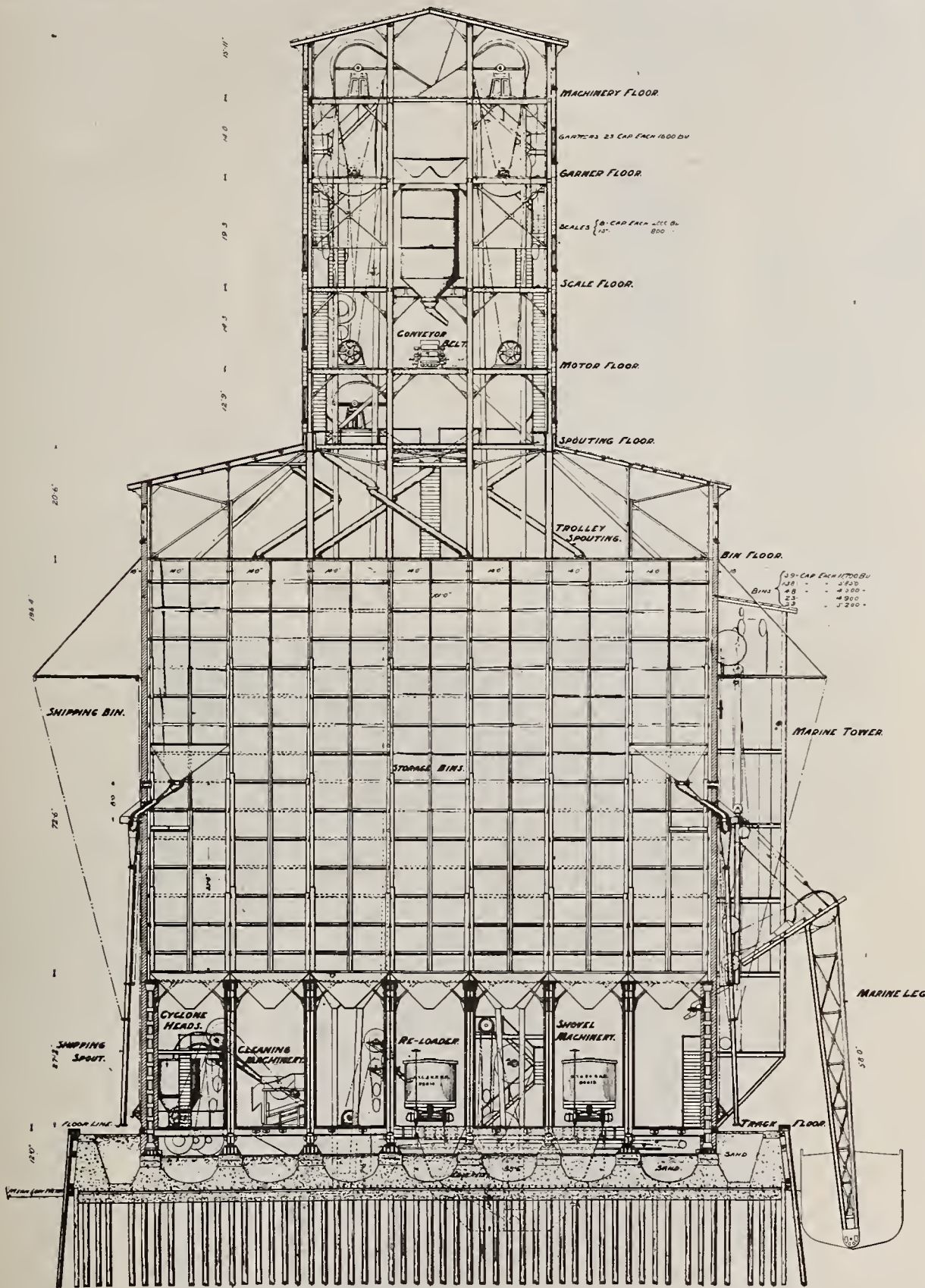
The work on both the elevator and the power station was executed under the direction of Mr. Wm. J. Wilgus, vice-president of the New York Central and Hudson River Railroad, in charge of construction, who was chief engineer of that company at the time the plans were made and the work commenced. Mr. H. Fernstrom, the present chief engineer of the company, was assisted in the supervision of construction by Mr. Olaf Hoff, engineer of structures, Mr. E. B. Katte, electrical engineer, and Mr. Joseph Stehlin, mechanical engineer. George M. Moulton & Company of Chicago were the architects and contractors for the superstructure and equipment of the elevator. Mr. Bernard Rolf was the contractor for the substructure.

RATES IN MISSOURI REDUCED.

In spite of the protests of the merchants of Springfield and other towns, who feared a reduction of rail freight rates in that state would be more beneficial to St. Louis merchants than to themselves, the Missouri State Board of Railroad Commissioners on March 24 promulgated the first amendment to the reasonable maximum freight rate schedules in the state, which it is authorized to issue by an enactment of the general assembly. The amendment took effect on April 1.

The principal feature of the amendment is that it makes but a very few changes in the maximum freight rates to be charged in the state. From a list of thirteen groups of freight classes and eighteen groups of commodities on which a reduction in rates was proposed, only six groups are affected by the amendment, among these being three commodity rates instead of the eighteen proposed. The rates disturbed by the new schedule are those on shipments of flour in lots of 10,000 pounds or more; mill logs, rough, for export, minimum weight to be 30,000 pounds; and melons of all kinds, the minimum rate to weight to be 25,000 pounds. Live stock, oil, lumber, lime, cement and brick are the commodities disturbed to an extent that will hardly be noticeable, the reduction being so small.

The proposed reduction in maximum freight rates was first given a black eye by the commercial interests of Kansas City when asked to give testimony before the State Board of Railroad Commissioners in February. After hearing the sentiment of Kansas City's commercial interests voiced so unfavorably to a reduction of rates, which would not be a fair relative adjustment from the standpoint of interests doing business in territory adjacent to Kansas City, the Commission visited St. Joseph, Sedalia, Joplin, Springfield and St. Louis. In all of the trade centers of the state the Commission found commercial interests to be against such a reduction in maximum rates as had been proposed, for the same reason—the relative adjustment of rates did not appear to be fair to all territory.



CROSS SECTION THROUGH 2,000,000 BUSHEL GRAIN ELEVATOR, WEST NEW YORK, N. J.
N. Y. C. & H. R. R. R.

ing encloses an iron stair reaching from the first floor to the topmost floor of the cupola, and also a 5-foot by 6-foot passenger elevator of 2,000 pounds' capacity, with a speed of 75 feet per minute, which also operates to the topmost floor, with intermediate landings to the other floors. One spiral stair encased in an iron tower at the river end of the building reaches to the bin floor without intermediate landings. There are also several interior iron stairs reaching from the basement to the first floor and from the bin floor to the various floors of the cupola, and one flight reaching to the roof.

All ironwork was painted in the shop with one coat of New York Central Standard Red Lead Paint, and during erection the interior work

capacity of 60 horsepower each, for operating the dust collectors and the belt conveyor in the cupola: seventeen, with a capacity of 40 horsepower each, for cleaning machines, car puller, marine tower, screenings elevator, cross conveyor and dust collector fans, and one, of 10 horsepower, for the passenger elevator, to which it is connected direct.

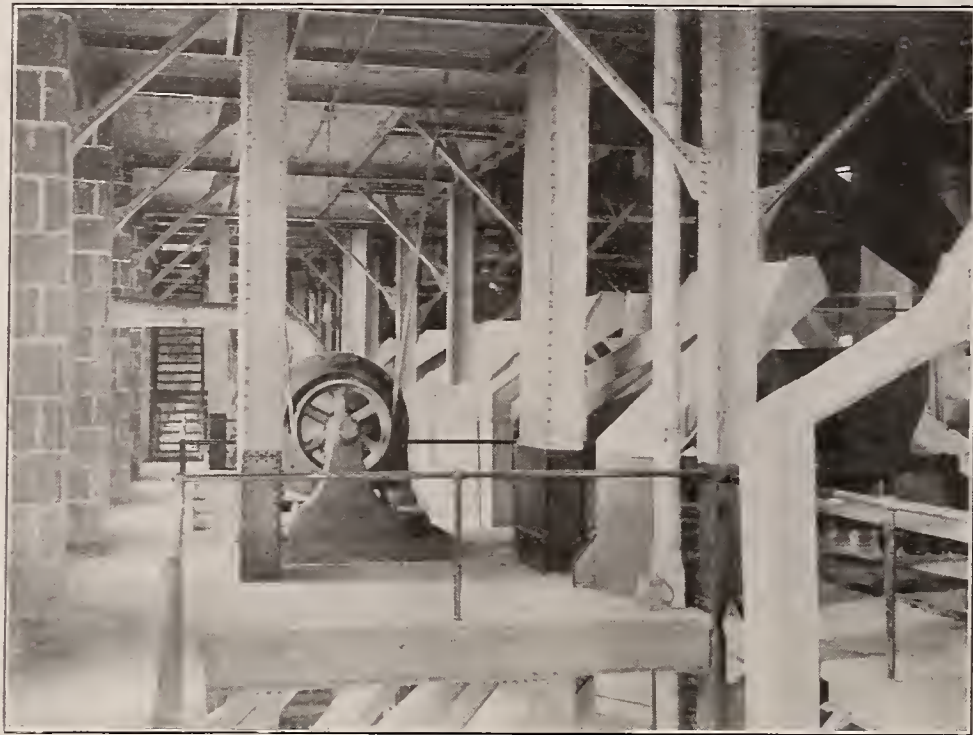
Light for the building is furnished by 328 16-candle lamps inside and 78 32-candle lamps, arranged in clusters of three, on the outside, lighting the dock.

The power station from which the current for the elevator is obtained is of recent construction and is also used to generate current for the railroad station and yards, docks, transfer bridges and

ERIE CANAL LITIGATION.

The attorney-general of New York has declared that in his opinion the \$101,000,000 barge canal act of April 7, 1903, is valid. This opinion was

otherwise. Those who have been interested to see the canal resume the old control of the freight situation were sorry to see the grain business drop so low last season that the showing was less flattering than formerly. Some of them failed to note that the actual need of the canal was proven



MOTOR FLOOR, N. Y. C. & H. R. R. R. ELEVATOR, SHOWING DRIVING MOTORS, DUST COLLECTORS, ETC.

rendered in response to an application made to the attorney-general to bring or permit to be brought an action in the name of the People of the State of New York to test the constitutionality of the act. A hearing was had upon this application, at which ex-Chief Judge Charles Andrews and former Secretary of War Elihu Root appeared on behalf of the applicants, and John G. Milburn, George Clinton and Abel E. Blackmar in opposition.

The attorney-general, Julius M. Mayer, after reviewing the various points in contention, says: "To summarize, I may say, first, that I am of the opinion that the act is constitutional; second, that it is the duty of the attorney-general to sustain the act and assert and defend its validity; third, that it will be in the interest of the people of the state that in the course of administration of the act a real controversy will soon arise which will result in a judicial determination of the questions involved; fourth, that if such controversy does arise, I shall facilitate in every way a speedy and full determination; lastly, it is my opinion that until such time it is the duty of the officers charged with the administration of the act to proceed with its execution in accordance with the provisions thereof."

This is encouraging to the friends of the canal and those who hope to benefit eventually from the effect of the canal on freight rates to and from the port of New York and the Atlantic seaboard generally, but the canal has a long term of existence before it can float boats larger than the present sad remnant of a fleet. "What can it do in that time?" asks the *Marine Review*, whose Buffalo correspondent in reply says:

The old grain-carrying boats are about gone or they are out of class and will carry nothing but coarse freight; but since it has been agreed to rebuild the canal on a larger scale the boat yards have gone to turning out a fleet of new boats and they will continue to be more or less active right along, for the curious thing about traffic in general also applies to the canal. It has always been possible to carry all the freight on the canal that sought transportation eastward, but as soon as it was not possible for the boatmen to make a living at the business the canal was worthless.

The converse of this is also true. There are seasons when it is possible for the boatmen to make money and yet let most of the business go by some other route. The officials of the New York Central Railroad so control the freight terminals in New York harbor that it is possible for them to make a good thing and yet the route may be slowly starving to death. So long as the carrier in either case was satisfied, he cared nothing for the route

by the amount of westbound freight it carried. Freights were very high all the season, the roads finding that it was to their advantage to send as much merchandise to Buffalo from New York by canal as it could carry.

After all, it is the iron traffic that needs the new

New York. This is a hint of what may also be done at this end of the canal when it is enlarged. So the friends of the enlarged canal are already beginning to see what they predicted, a line of iron manufactories along its whole length and well beyond its ends, not possible with all-rail transportation.

It is never quite known by the canal boatmen what rates the roads make in competition with it. They only know when their rate is so high that they get no freight that it has run up against the rail rate. If they can carry iron now for \$1.25 in a 250-ton boat, they ought to make good their promise to reduce the rate to 50 cents when the new canal is ready. This means not only entire control of the situation, but it means such a further building up of towns in the reach of the canal that they will soon come into the class of English manufacturing towns for size and frequency. There may be almost equal possibilities for other canals, just as has taken place of late in Europe.

SOUTH BEND INSPECTION.

As the junction of the "Three I" Railroad (an important outer-belt crossing every line in Illinois and Indiana between St. Joseph, Mich., and the Mississippi River) and several Eastern trunk lines, South Bend, Ind., has become a very important grain transfer point, chiefly through the house of the United Grain Company of Chicago, South Bend, Toledo and Buffalo. Naturally the trade influences felt there are those of the nearest market, Chicago. Therefore, to keep in touch with this market, the grain interests there have established Chicago inspection and weighing.

On March 24, therefore, Judge Walter A. Funk of the St. Joseph Circuit Court appointed John A. Costello to be official grain inspector, and after qualifying the latter appointed Fred W. Ridenour of South Bend to be his assistant as official weigh-



SCALE FLOOR, N. Y. C. & H. R. R. R. ELEVATOR, SHOWING SCALES AND SCALE HOPPERS.

canal, and it is the canal that is to hold the iron traffic to the lakes. Already the pig-iron trade by canal from Buffalo to Tonawanda is of fair size and it is steadily growing. There was about 14,000 tons of it carried by canal to tidewater last season, and it did not all stop at New York harbor, but found its way up the sound to Bridgeport, New Haven and other manufacturing towns, thus sometimes doubling the regular rate of \$1.25 a ton to

master, both officials having headquarters in South Bend and offices in the Interior Transfer Elevator Company's elevator on West Sample Street.

Mr. Costello was one of the veteran grain samplers of the Chicago Board of Trade and a man fully competent to give shippers to South Bend excellent service.

FORGED BILLS OF LADING.

The ease with which receivers and bankers may be swindled by nifty operators by means of the forged bill of lading has again been illustrated by the daring plunge of one J. T. Ricketts, a grain buyer at Paris, Ill. W. W. Granger, manager of the Union Grain and Hay Company of Cincinnati, says that company has been doing business with Ricketts for over twelve years. About the middle of March, or thereabouts, his company, in the regular course of business, paid \$3,750 for seven cars of corn purporting to have been shipped to them by Ricketts, the drafts therefor coming to them with bills of lading attached through the First National Bank of Cincinnati, acting as correspondent of the Merchants' National Bank of Indianapolis, through whom Ricketts did this particular piece of business. The Indiana bank, after the money had been in their possession for several days, held there on Ricketts' order, paid the same to him in person. Ricketts has not been seen since by anyone who knew him or has reported it.

In the meantime the cars did not arrive as expected and the consignors called upon the railroad company (Big Four). They were informed that the Chicago division, over which they were routed, was congested with business and that they were possibly delayed. This continued for several days and when the cars failed to show up the railroad company set to work tracing them. This resulted in the discovery that no such cars as were indicated in the bills of lading had been loaded at the points mentioned or shipped. The Union Grain and Hay Company was immediately notified by the railroad company and advised to communicate at once with a reliable citizen at Paris and ascertain whether the signature of the station agent at that point was forged on the bills of lading. Mr. Granger did so by long distance telephone on April 1 and was informed that Mr. Ricketts had disappeared.

Subsequently it transpired that the Southern Grain Company of Cincinnati and the Strater Bros. Grain Company of Louisville were similarly caught by Ricketts for about the same amount each, his total plunder, so far as reported by April 1, reaching about \$15,000 in the two cities, with the expectation that other victims would be unearthed.

Inquiry at Paris discloses the fact that Ricketts had managed to dispose of his property and on March 20 had gone to Indianapolis, from which city he sent his wife a postal card. He then disappeared, leaving his young wife and son behind him.

Ricketts had originally operated at Conlogue, where he was listed by Bradstreet's, until recently, as a man of limited credit only. A Paris telegram says he is a man of about thirty years of age and had bought grain at Conlogue, May and Paris for over twelve years, but had recently moved to Paris. He came from a good family and had a good reputation.

The Merchants' National Bank at Indianapolis, according to a telegram to the Cincinnati Enquirer, explains through President Frenzel its connection with Ricketts by saying that Oscar Frenzel, cashier, had a passing acquaintance with him and that he had represented that he expected to build or buy an elevator at Indianapolis. Ricketts had also had an account with the bank for some time. He began drawing on the Cincinnati firms through the Merchants' National several weeks prior to April, according to President Frenzel's recollection. He sent the drafts, with bills of lading attached, from his home at Paris. They were in regular form, and the bank officials had no means of knowing they were forgeries. However, when they forwarded them to Cincinnati, they stamped them across the face that they assumed no responsibility for them.

"Ricketts requested us by mail to collect on the drafts and credit the amount to his account," said President Frenzel. "In due course of time we forwarded them to the First National Bank of Cincinnati, our correspondent there, and on receipt of

advice of payment from it we credited the amount to Ricketts' account."

President Frenzel says that Ricketts manifested no uneasiness about the money, as he let it stand here for several days before he called in person and withdrew it. Ricketts has not been at the bank since then. President Frenzel said that his bank accepted the business from Ricketts the same as from any customer, and he had no intimation that the transactions were in any way irregular. Prior to sending the drafts for collection at Cincinnati, Ricketts sent in drafts on a concern at Mattoon, Ill., and they were promptly paid.

The Cincinnati victims have employed H. H. Hill to make proper investigation of the case, while the Big Four officials have ordered their secret service to spare no pains to run down and arrest Ricketts.

R. H. FOLWELL.

When James Stewart & Co. decided to establish a branch of their business in Chicago, devoted to the construction of grain elevators, their first step



R. H. FOLWELL, CHICAGO.

was to select a manager who was qualified by education, experience and disposition to maintain the firm's reputation as American contractors who "do things"—do them rapidly and also well. So, as these columns a month ago told the reader, they selected W. R. Sinks.

The next step was to appoint an engineer in whose charge the engineering work of the local office should be placed. Here, again, the shrewdness of James Stewart & Co. in selecting their responsible subordinates is shown in the appointment of R. H. Folwell as resident engineer.

Mr. Folwell is a young man, being only thirty-four years of age; but he is the right sort. Born and raised in Minneapolis when that lusty young metropolis was going through its period of "growing pains," he absorbed the spirit of the expanding Northwest, and having completed his primary education, entered the University of Minnesota for a course in practical science. He was graduated a B. S. and took his M. S. at Cornell. Then came the business of life he had spent so many years to equip for.

First, as draughtsman with the Detroit Bridge Works, he had three years' experience in bridge work, from which he passed to railroad work with the Great Northern, for which corporation as assistant engineer he superintended the construction of the famous 2,500,000-bushel house at Buffalo; later as chief engineer on elevator work for the same company he erected a 3,000,000-bushel house at Superior, Wis., and on leaving the Great Northern he was for three years in charge of the

draughting department of the Barnett & Record Company, Minneapolis.

[For the "American Elevator and Grain Trade."]
THE EFFECT OF THE "GERMINATING PERIOD" ON CORN.

BY CARL S. SCOFIELD.
 Department of Agriculture, Washington.

The question of how corn will carry or store through the spring months is one of perennial interest to every grain dealer and elevator manager throughout the great corn belt. The losses from damage occurring in the spring of the year are much greater than at any other period, and there has come to be a deep-rooted superstition in the trade regarding this treacherous season.

The term "germinating season," which is generally applied to this critical period, conveys a somewhat erroneous idea as to the nature of the damage that occurs. Contrary to a more or less definite notion that appears to exist, the corn kernel contains no time-clock apparatus, set to go off at any given period of the year. If conditions are right, mature and healthy corn kernels will germinate at any time, irrespective of the season.

The causes of the damage resulting in the spring are not, therefore, to be regarded as inherent in the corn kernel and unavoidable, but as the result of external conditions, which are usually within the control of the grain shipper. The difficulty experienced with grain during the spring is not, however, a result of germination, properly speaking. It is a result of fermentation which starts in corn when it is too moist and kept at too high a temperature.

In order to bring about either germination or fermentation in corn, three things, and those in about the right proportions, are necessary. First, it must have air; second, it must have moisture; third, it must have warmth. To cause germination, or even a serious fermentation, all three of these conditions must be present. No matter if two of them are most favorable, nothing will occur without the other; so if but a single one of these conditions can be controlled danger may be avoided.

It is well known by all farmers, and probably by most grain dealers, that corn planted too early in the spring will not germinate. This is not because the grain lacks air or moisture, but because it lacks warmth. It is also well known that grain planted at a very dry time in midsummer will not germinate, not because it does not have air and warmth, but because it does not have moisture. It is also known that grain entirely surrounded by some inert gas, such as carbon dioxide (carbonic acid gas), will not germinate, no matter what its temperature and moisture conditions may be; and it is interesting to note in this connection that grain is sometimes stored in tight bins, which are filled with this carbon dioxide, which replaces the air, and the grain so treated is said to be preserved in good condition, even if the moisture content and the temperature are both high enough to cause serious damage if air were present.

All these facts go to show that it is not the germinating season of itself that causes the trouble so frequently experienced during the spring months by men handling corn. If any one of the three factors required for germination may be properly controlled, corn can be carried or stored without damage at any season of the year. It becomes, then, a question with the grain dealer as to which of these factors it is easiest for him to control, and full light on the whole matter of the effect of these factors on the corn kernel is essential to the most economical application of whatever practices are followed.

In the North, where it is cold during the winter, corn that is exceedingly moist, containing as high as 18 or 19 per cent of water, is often safely stored for long periods of time during the cold weather. If, on the other hand, corn is to be stored where the weather is warm, it is more economical to lower the moisture content to 14 or 15 per cent by drying the grain than it is to attempt to keep it

in artificial cold storage. Corn may be dried in some sort of a machine by ventilating with heated air, or it may be dried by ample ventilation with air at ordinary temperatures. The use of grain driers has been extensively advocated of late through the trade papers and otherwise, but very satisfactory results in drying corn are often achieved by simply running grain around an elevator with the doors and windows all open on a dry day. This treatment often lowers the moisture content sufficiently to prevent damage, and where this is the case it is to be recommended in place of any more drastic measures, as drying by artificial heat.

Any question of ventilating either warehouse bins or grain cars should be considered in a common-sense way. The question to be asked in every case is, Will the system of ventilation proposed bring a sufficient amount of air in contact with the grain to remove the surplus moisture? If it will, that is all that is necessary. If it will not, other means must be applied or damage will result. This question can best be answered by the grain shipper himself by making some tests of the moisture content of grain in his regular business. In this way he may learn definitely what his limit of safety is for the various seasons and altogether avoid the losses he has had to bear in the past.

In a general way it may be stated from numerous observations that have been made that the mere ventilation of a bin or of a freight car containing grain in bulk is inadequate to bring about the drying necessary to insure the safe keeping of the grain.

It is difficult to lay down a general rule as to the limit of moisture that will be safe for corn at any season and for all regions. A safe limit in the North in the winter will not do for the warm Southern ports at the same season, and spring and summer weather require a much lower limit for safety than would be at all necessary in cold weather. Intelligent experimentation on the part of elevator managers and grain inspectors would quickly establish a safe moisture limit for corn for storage or shipment, and in this connection it is desirable to emphasize that this factor of the moisture content is probably the most important one to be considered in determining the grade of grain. The moisture content of grain may be determined very easily by anyone who is sufficiently interested to undertake the work. The apparatus necessary for testing the moisture in grain has been previously described in these columns. It is simple of operation and so relatively inexpensive, when results that may be achieved with its use are considered, that every grain dealer should at once realize its possible utility in his own work.

While it is true that the relative humidity of the atmosphere may make some difference in the storage of grain, this is true only to a very limited extent. Bulk corn in large bins or in freight cars is practically impervious to ordinary air currents; that is to say, only the grain on the immediate surface is affected by the condition of the atmosphere. As is well known by elevator men, grain that has been put into large bins in the wintertime when the weather is cold warms up very slowly when spring comes on. When grain that has been put in store in midwinter is run out for loading along in May or June, it is nearly as cold as when it went in. In other words, it is practically refrigerated. When this cold grain meets the warm and relatively humid atmosphere of the average spring day, atmospheric moisture condenses on the surface of each kernel just as it does on the surface of a pitcher of ice water, and if this grain is immediately run into cars or into the hold of a vessel, these moisture drops amount to enough to cause extreme damage in a very short time. These facts are already recognized by some experienced elevator men and grain inspectors, and in at least one of our Northern cities the grain inspector requires that when winter-stored corn is to be moved out of an elevator in the spring it shall be run around the house the day before loading in order that it may be warmed up and ventilated to prevent this ac-

cumulation of condensed moisture. This precaution has been amply justified in actual commercial experience.

[For the "American Elevator and Grain Trade."]

CONSTRUCTION OF THE MODERN FIREPROOF ELEVATOR.

BY R. P. DURHAM.

To one whose daily routine of work keeps him confined to the narrow limits of downtown Chicago, and whose occupation is such that he has little occasion to consider what may be doing in other lines, it is probable that the typical Chicago River grain elevator—the big, dingy building with the cars running into it and the dust blowing out of it—is the picture made in his mind when "grain elevator" is mentioned to him. He knows it is a storehouse for grain, that cars of grain come in from the West, and perhaps he sees an occasional steamer taking on a cargo for the East. He knows also that some day the big building will make a "fine fire." But it does not occur to him to consider that the grain world is progressing; that methods of building elevators in Chicago fifteen years ago may no longer be called typical of all elevators, whether in Chicago, Kansas City, Omaha, Duluth, Fort William or other receiving points, or in New York, Boston, Portland, New Orleans, Galveston, or other shipping ports. Neither does he know, unless he is a follower of the progress of the day in construction lines, that the elevator which makes a "fine fire" is being supplanted by one as safe as a modern office building.

The old adage that necessity is the mother of invention is strikingly exemplified in the building of elevators in recent years. Doubtless this necessity has had some children which have been no credit to her, but the net result of the inventions has been a steady and marked improvement in construction methods.

The necessity arose from several causes, among them the competition among elevator engineers to design "the best," and the desire of grain men to have the "most rapid handling house in the country." But the prime cause for turning to different construction methods was the increasing reluctance of the underwriters to carry insurance at reasonable rates on what dearly-bought experience was yearly proving to be a very poor risk.

The wooden elevator, let it be understood, is by no means a back number. It is still the cheapest and the fastest to build, and these exigencies of money and time often outweigh insurance considerations. But in the case of even the wooden elevators the improvement has been great, particularly in equipment. With automatic electric journal alarms for instantly signaling hot bearings, and automatic sprinkler equipments to put out incipient fires, it is possible to get a reasonable insurance rate.

Designing of machinery has kept pace with the building methods, not only in the general transmission of power, but in machines for cleaning and treating grain. In fact, the latter are being so often improved that to-day's best may be archaic in a year.

The substitution of electric power, in comparatively small units, for long rope drives and heavy line shafts has tended to simplify machinery arrangements and, to a certain extent, to economize space and building material.

The insurance authorities are mighty particular people to deal with when a wooden elevator is concerned. They want doors at all stairways and cut-offs all up and down open shafts and dust sweepers and a thousand other things that cost money, but the result has been better elevators and lower rates. Even on elevators of wood which suit the insurance inspectors, the rates are still comparatively high, and it is no wonder that attention has turned to incombustible buildings, so that now we have various kinds of fireproof construction advocated by various engineers. The competition among builders to increase fire protection without undue increase of cost has been so keen that an

occasional failure to secure proper strength has resulted, but these failures have been of great value as lessons to other builders.

For "up-houses," or elevators where the storage is entirely in bins above a high working story, practically the only successful fireproof elevators built in this country up to the present time have been of steel construction, with steel or wood bins, though one or two examples of what are practically up-houses of concrete are in existence abroad. There is no good reason why concrete cannot be used for such elevators, except for the cost and manipulation of the forming, which are comparatively expensive; the material itself being as cheap as steel, and, if properly built, no structural weakness being necessary.

There have been many different steel "up-houses," divided into the two general classes of "rectangular bins" and "round bin." The advantages claimed for the rectangular bin are the ability to keep more lots of grain separate, the bins being, as a rule, smaller than those in round bin elevators; the ability to more completely utilize ground space; more free running of grain, as compared to interspaces between round bins; more simple arrangement of columns and supporting girders; greater rigidity of construction. The advantages claimed for the round bins are economy in first cost; simplicity in making the bin walls, and greater strength per pound of metal used. It is not the purpose of this article to enter into any discussion as to which is the more valid claim, or to show how one claim may offset the other. Both round and rectangular steel bin elevators have been built to the capacity of many millions of bushels, and the manifest advantages of both over wood construction have perhaps caused smaller faults to be forgotten.

Experience in general steel construction has proven the ease with which steel is practically destroyed by fire unless protected by some more fire-resisting material. This has been brought home to elevator engineers by the disastrous consequence of combining wood and steel with the expectation that the result would be a fireproof building. It has, therefore, come to be fairly well understood that a truly fireproof steel elevator shall contain no wood, or at most not enough to make any possible increase in the risk of its burning and affecting the steel. Provision is made against destruction by fires from freight cars burning within the elevator by encasing the columns, and, in some cases the girders and bin bottoms, in concrete or tile, which fully protect the steelwork. This fireproofing by means of tile or concrete has in some cases extended to covering the outside bin and cupola walls with similar material, to protect the elevator from adjacent conflagrations. (For many years brick walls have been required on Chicago elevators, even if of wood, to protect them from outside fires.) Roofs on fireproof elevators are usually of concrete, tile or corrugated steel, and floors of concrete.

Reference has been made above to using wood bin walls in an otherwise fireproof elevator. This has been successfully accomplished in one prominent instance in this country, and will be the method of construction to be used shortly in a British elevator. In both cases, no wood surfaces, except the insides of the bins themselves, are exposed to fire hazard, all being encased in or protected by brick, tile or concrete. This reduces the probability of fires in the bins to a minimum.

Turning our attention now to elevators for storage only, we see a much more universal supplanting of the wooden structure by the fireproof building. The necessity in working houses of providing many small bins, building a high working story below the bins, and planning for a large amount of heavy machinery, is so far overcome by the less exacting requirements of a building purely for the storage of large quantities of grain, that the combined structural and economical problem has been more readily solved. Fireproof storage elevators are being built entirely in the form of cylindrical bins of comparatively large capacity, either mak-

ing each bin independent, or nesting them and using the interspaces as bins. Since these bins can be built in much larger units than when wood is used, the amount of bin wall per bushel capacity is proportionately decreased. As a result, fireproof elevators with large storage bins compare more favorably in cost with wooden elevators than is the case in non-combustible working houses with small bins. The insurance saving is as large as in the other case, and the consequence is that the fireproof storage elevator is becoming the standard construction.

Four principal materials are being employed for such elevators; namely, steel, concrete, tile and brick. Each has its advantages and its enthusiastic exponents. For the reason given above for protecting steel columns in a working house, steel storage bins have met with some disfavor when adjacent to combustible buildings, which is generally the case with storage elevators. The other three materials have yet to meet with severe and conclusive tests of their fire resisting qualities in large bin walls, but experience with the same substances in other buildings would not lead to any fear as to the result of such tests. Neither have the various buildings constructed shown conclusively that any one of the materials is better than the other two. Each has points in its favor which must appeal to the judgment of the individual, and when even the engineers cannot agree which is most desirable, it leaves the advantage to the cheapest, which, at present, is concrete.

A review of recent progress in elevator construction would be incomplete without some mention of the universal substitution of concrete for stonework in foundations, but this is only in keeping with the ever increasing use of cement products.

TO RAISE THE QUARANTINE.

A meeting of the executive committee of the Texas Grain Dealers' Association was held at Fort Worth on March 22, the object of which was to take steps to have raised the quarantine now existing in Georgia against Texas oats. The meeting was attended by Messrs. J. Z. Keel of Gainesville, Eugene Early of Waco, L. G. Belew of Pilot Point, H. B. Dorsey of Weatherford and C. F. Gribble of Sherman. The special committee to whom the work named was delegated was L. G. Belew, Secretary Dorsey and C. F. Gribble.

It will be remembered that on account of the boll weevil, a number of the Southeastern states have quarantined against the importation of Texas oats, in which it is supposed the weevil might be carried from state to state. For a time the state of Louisiana would not allow the railroads or other transportation concerns to carry Texas oats into that state. Several meetings of the Texas Association were held in Texas last year, and after a few weeks' time the matter was taken in hand by the state association. The authorities of Louisiana were conferred with and the result was that the quarantine was raised.

A special committee was appointed to appear before the pest commission of Louisiana, and the committee's success in showing that the danger of spreading the weevil with the precaution taken in handling oats was overestimated; and as a result the export business from Texas is increasing each year. The main objection, now, that the Southeastern states have to the importation of Texas oats is the claim that Texas oats when used as seed cause rust.

In the case of Georgia, which has a statutory quarantine against grain infected or exposed to infection of boll weevil, the committee find a serious obstacle in the way of removing the quarantine. This is explained in a letter from the state entomologist of Georgia, who says that a modification of the law is not left to the discretion of the Entomological Board of Georgia, which, owing to apparent reluctance of the government entomologists in Texas to issue certificates that grain from any part of the state has not been exposed to the boll weevil, renders the law in Georgia a practi-

cally prohibitive quarantine. The secretary of the committee has been instructed to appeal to the governor of Georgia to submit to the legislature, which convenes in May at Atlanta, some remedial legislation that will permit the marketing of oats, etc., from Texas in that state when the same are reasonably safeguarded. The cutting off of the market afforded by Georgia and other Gulf and Southeastern states would materially depreciate the value of the Texas oat crop, which just now is very promising.

GRAIN DEALERS' NATIONAL ASSOCIATION.

A meeting of the board of directors of the Grain Dealers' National Association was held at the secretary's office in the Board of Trade Building on March 21.

There were present President R. B. Schneider, Secretary G. A. Stibbens and Directors Jay A. King of Iowa, D. Hunter of Iowa-Missouri, S. S. Tanner

[For the "American Elevator and Grain Trade."] THE MODERN COUNTRY ELEVATOR.

By P. F. McALLISTER.

The subject of the modern country elevator covers more than the average person would think; and the task of writing a comprehensive treatise upon it taxes one's ability to no small extent. Yet in this article I design to present to the reader a fair idea of what a modern country elevator is and how the modern house is built.

In speaking of the country elevator we use the term as distinct from the transfer and cleaning and the terminal elevator. The average grain man knows what each of the above elevators is for; but it might be well in this connection to give a little summary of their uses.

The country elevator must be considered first, because all grain originates in the fertile fields which stretch in almost exhaustless prodigality throughout our rich Western territory. This grain



SOME MEMBERS OF DIRECTORY OF GRAIN DEALERS' NATIONAL ASSOCIATION.

Reading from left to right—standing: Henry L. Goemann, Toledo; H. S. Grimes, Portsmouth, O.; Thomas Torrison, Manitowoc, Wis.; T. J. Stofer, Buffalo; C. B. Riley, Indianapolis; W. E. Sheldon, Jackson, Mich.; Jay A. King, Nevada, Ia.; D. Hunter, Hamburg, Ia. Sitting: G. A. Stibbens, secretary, Chicago; Mrs. S. Frey, stenographer; R. B. Schneider, president, Fremont, Neb.; S. S. Tanner, Minier, Ill.

of Illinois, W. E. Sheldon of Michigan, C. B. Riley of Indiana, as proxy for A. E. Reynolds, T. J. Stofer of Buffalo, H. S. Grimes of Ohio, Thos. Torrison of Wisconsin and H. L. Goemann (Toledo) at large.

The proceedings were executive and the only matter disposed of made public was the decision to hold the annual mass convention of the Association at Niagara Falls on Friday and Saturday, June 2 and 3.

The last exportation of wheat for the season of 1904 from San Francisco went out on March 17 to Great Britain.

The Interstate Commerce Commission has issued orders instituting an investigation in the matter of rates on corn products from Missouri River points to points in Louisiana, Texas, Washington, Oregon and California at Chicago on May 8. The roads involved are the Santa Fe, Rock Island, Frisco, Missouri, Kansas & Texas, Missouri Pacific, Iron Mountain, Kansas City Southern and Burlington.

must be started on its way to market at the country station, and so it is disposed of by the farmer to the local buyer as the preliminary step on its forward way to its ultimate destination, the place of consumption. On its way forward the grain sometimes passes through a cleaning elevator, which receives the grain as it was delivered to the local country dealer and divests it of its superfluous chaff and dirt, or whatever foreign material may be mixed with it. Finally, it arrives at a terminal elevator, from which it is not long before it is moved for export, or at a storage elevator where it is held to await a possible advance in prices.

It is safe to say that the construction of the smaller houses has not kept pace with the perfection in arrangement and in the use of the modern types of materials employed in the large elevators. A little travel through our grain-producing states will bear me out in the foregoing statement. It is not necessary to go further than even a hundred miles out of Chicago to see coun-

try elevators that are very poorly constructed, both in design and workmanship.

There are a great many things to be looked after in the building of these little elevators. Chief among those things which should be given special attention are the foundations, the strength of the bin walls and the joists, posts, girts, etc. These are of vital importance. If there is a weakness in the foundation or a lack of strength in the walls, it means not only the possibility of damage at some busy time for the owner when grain is accumulating in his house, but a liability to total collapse of the elevator. Such an accident would also result in the loss of the grain, for these incidents do not occur when the elevator is empty.

A few of the minor things about the small elevator that should have attention are convenience for the man who runs it, accessibility to the working parts at all times, plenty of light, and the smallest number of working parts that can be gotten along with consistently.

There are hardly two of these small houses that are designed alike or have the same conditions to contend with. In one section of the country grain may be brought to town in sacks, while in another it may be brought in in bulk to be unloaded into a dump sink below the driveway floor. Still another condition must be provided for in certain localities, where corn is marketed on the cob. In such cases a sheller and cleaner must be installed, as well as corn cribs erected outside the elevator proper.

The prospective builder of an elevator should see that in all respects his house is fitted with improved machinery and the latest designs of appliances. Among some of the latest improvements in machinery and working parts for the country house are grain distributors, automatic scales, non-chokable and water-tight boots, fireproof elevator legs, worm gear car pullers, and the pneumatic system of handling grain.

There are two things in the foregoing list that will bear investigation at the present time. I refer to automatic scales and the pneumatic system of handling grain. There are many of the first mentioned on the market at the present time that are so complicated as to be well-nigh worthless, while the second has not reached its final stage of perfection. There are good automatic scales, however; and their use in an elevator is safe from an accurate and wise from an economical standpoint, and it is to be hoped that we may yet see a pneumatic system that will still further advance economical grain handling in the country house.

In order that a prospective builder may not be imposed upon by all the salesmen in his part of the country, who may have various appliances from a keg of nails to an engine to sell, some being good and some being extremely poor, it would pay him to go to a reliable contractor or builder of elevators and have a substantial elevator designed and built. The reason we advocate this is that a great many people think an ordinary carpenter or any sort of builder can design and build a grain elevator; but they are likely to find to their sorrow afterward that they haven't an up-to-date elevator, but only an ordinary barn with a little machinery in it, and that it has cost them as much as, if not more than, the real article would have cost. The best is cheap at any price.

NASHVILLE GRAIN DEALERS.

The Nashville Grain Dealers' Association of Nashville, Tenn., has under consideration a plan to hold a grain carnival in that city in November next, after all crops shall have been harvested, giving liberal prizes for the best exhibits and free facilities to exhibitors.

Nashville is the largest grain market in the Southeast and the volume of its business is rapidly increasing; besides, it is the fourth in rank as a milling city of the United States.

[For the "American Elevator and Grain Trade."]

BRICK ELEVATOR CONSTRUCTION.

BY AN OCCASIONAL CONTRIBUTOR.

The idea, entertained for years, that the use of brick for elevator construction is impractical, has been proven erroneous within the last three or four years; and to S. H. Tromanhauser of Minneapolis, Minn., as much as to any one man, belongs the credit for disproving the former theory. Mr. Tromanhauser is a well-known elevator builder and contractor of the Northwest, and he has been convinced for years that there would be a great demand for fireproof elevators whenever it was proven that fireproof material could be utilized so as to withstand the pressures ordinarily placed upon bin walls, and after considering all kinds of fireproof building material, he at last arrived at the conclusion that, all things considered, brick was the most practical for several reasons.

However, the question of constructing a wall of brick and mortar, which would withstand the pressure of the grain, at a reasonable cost, seemed to

safety of a brick wall built as above described, he should try the experiment of forcing a wall measuring ten feet and a half, for instance, through a space ten feet wide. By employing this principle Mr. Tromanhauser leads all other builders of fireproof elevator structures, for instead of depending upon the tensile strength of the material used to overcome the pressure of the grain, he gets the benefit of the crushing strength, and it is a well-known fact that it requires much more power to crush a given substance, when confined in a space no longer than itself, than to break the same substance.

The advantages of brick over wood construction are apparent even to the uninitiated, and its advantages over other fireproof construction are many and readily appeal to the practical mind. In the first place, brick, being a porous and absorbent substance, attracts and absorbs any abnormal moisture in the grain without reducing it below the normal amount; secondly, it is absolutely fireproof and will not warp or twist out of shape, as will steel when exposed to extreme heat from external causes; and, thirdly, it is sufficiently elastic and



BRICK ELEVATOR OF THE SPRINGFIELD MILLING COMPANY, SPRINGFIELD, MINN.

be for a time a poser. Nevertheless, he set to work, and after several costly and discouraging experiments, has devised a wall not only capable of withstanding any pressure that may be put upon it, short of that necessary to crush the brick itself, but one which may also be built at such a slight advance over the cost of common wood construction that the saving of insurance on the building alone, to say nothing of its contents, yields a handsome return on the difference in cost.

Mr. Tromanhauser employs in the construction of his walls a simple principle, old as time itself, and one wonders, as he looks over his plans, that someone had not thought of it years before he was born. This principle is that of the arch, with which we are all familiar in the construction of bridges and for the purpose of supporting the weight of walls over windows and doors in ordinary brick buildings. Of course, he uses it to confine a horizontal instead of a vertical pressure, but there is no good scientific reason why this cannot be done successfully. The arched wall is of ordinary thickness, varying according to the size and capacity of the bin, laid in cement mortar, the "abutments" being simple pilasters extending from bottom to top of the bin wall and tied together with iron rods placed at suitable distances to ensure safety from spreading and embedded in the wall itself so as to be concealed from view.

Should the reader of this article doubt the

tenacious to expand and contract with heat and cold without checking or cracking in the process.

Mr. Tromanhauser has already completed five fireproof houses according to his plans, with bins holding from 1,000 to 35,000 bushels each. The last house to be completed, and one which has been pronounced by experienced grain men the finest grain elevator in the country, is the 60,000-bushel house just finished for the Springfield Milling Co. of Springfield, Minn., a half-tone picture of which appears herewith.

This building is 40x50 feet on the ground and 85 feet high. It stands on a solid slab of concrete, 48x58 feet, and 18 inches thick, on which rest the two footing courses, also of concrete, 4 feet and 3 feet wide, respectively. Upon these rest the concrete foundation, which is 2 feet thick and rises 3 feet above the ground line where the brick walls begin. These are 17 inches thick for the first or working floor, 13 inches for the bin walls and 9 inches for the cupola, the inner tier of brick in the bin walls being hollow tile.

The first, or working, floor contains three large size Prinz & Rau Separators, four steel elevator legs for receiving, lofting and transferring grain, a power shovel for unloading cars, a 1,200-bushel Fairbanks Scale, with steel hopper for weighing grain in and out of the house, and the necessary line shafting, pulleys and sheaves for transmitting power to the various machines. Overhead on this

floor may be seen the steel hopper bottoms of the sixteen bins of the elevator. These are securely bolted to the 24-inch box girders which support the bin walls and are supplied with steel slides and iron levers for operating same. An iron stairway at the west end of the building affords means of ascending to the cupola which contains the elevator heads and distributor spouts.

All of the floors of the building are of concrete, the spouts, stairs and bridge trees for supporting machinery and shafting are of iron or steel, no wood being used at any point.

The plant is driven by a 10x30 Twin City Corliss Engine, located in a special room connected with the engine room of the mill. Five strands of 1½-inch rope transmit the power to the main line shaft. The latter is equipped with clutch sheaves and pulleys throughout its entire length so that the operator can instantly start or stop any machine in the building, thus effecting a great saving of power, it being necessary to run only such machines as are in actual use at any time.

The owners of the plant are highly pleased with it and take considerable pride in showing it in all its details to visiting millers and grain men. While it cost them somewhat more to build than would have a wood house of the same capacity, they feel that the saving in insurance premiums will pay them handsomely for the increased outlay and, judging by the expressions of insurance men when they inspect the plant, their faith is well founded.

BUTLER HARD HIT.

James Butler, the founder and also the bete noir of farmers' co-operation in Kansas, was badly hit by the convention at Hutchinson, Kan., on March 21, where the first steps were taken to form an association of farmers' independent co-operative grain companies. Butler was the real promoter of the state association idea, and his plan was to swing the meeting his way to support another of his pipe-dream combinations. He succeeded in getting himself elected secretary of the convention, but that was as far as his pull carried him.

Butler is a sort of all-rounder—was in the legislature once; got up a farmers' company which he managed till it petered out; got up another one from which he drew a fine salary, until Hoffman elbowed him out of that; then he went to Kansas City and there, says the Hutchinson News, he had some reputation as an average billiard player, and there he ran a hall where this game and pool are played between co-operative promotion seasons. Some time ago Butler raked some money together and had a circular printed, describing the Farmers' Grain Exchange. He passed these around himself. The first name on the list was that of James Butler, and he was it, that is, president. He assigned a full quota of officers to a number of other people, some of them farmers and scattered around through the state. Then he called a meeting in Topeka a couple of months ago and started another farmers' movement. This ended in a sort of organization, which was adjourned to meet in Hutchinson and which was brought together for the purpose of merging it with the Butler Farmers' Grain Exchange. But when he met the farmers at Hutchinson, Butler saw that he was up against it. He tried to merge the thing before their very eyes, but he was being watched, and the organization formed was for a different purpose, an entirely different set of officers from that planned by Butler being named. Butler's scheme was too obvious; and the farmers present (about forty) organized what they call "The Farmers' Independent Grain Dealers of Kansas." The object of the organization is educational: "To gather together to get each other's ideas, so that co-operation in the elevator business can be studied." There was no stock company scheme in the Hutchinson meeting after Butler took to his heels.

The officers of the new association follow: President, William Kenton, Rice County; vice-president, C. W. Peckham, Haven, Reno County; secretary and treasurer, E. M. Black, Preston, Pratt County.

WHAT THE EXCHANGES ARE DOING.

TOLEDO 1905 PROSPECTS.

[From A. GASSAWAY, Secretary Toledo Produce Exchange, Toledo.]

To glance at Toledo's wheat receipts for several years would give an outsider an idea that our grain trade was slowly leaving us; to those familiar with the crops tributary to our market in the past few years this is known to be only a combination of circumstances, which liberal yields in future will disprove. Consumption, which has lately increased in much greater ratio than the crops, has made insistent the interior milling demand, with the result that millers in the country have taken the crop at prices which paid the local elevator buyer better than to forward the same to Toledo or other primary markets.

To be blessed with a crop this year with the proportions of 1898, when Ohio, Indiana and Michigan raised about 115,000,000 bu., against a total last year of 37,000,000 bu., would give our dealers a rush here of at least liberal volume. This, with our established fairness of grading, both in and out, will enable our market to be again a factor in the Eastern trade.

Oats.—Trade has been good all winter, due to the excellent quality received here on the last crop.

Corn.—Liberal Eastern demand has continued all winter, our reputation for good goods being general in the East.

Clover Seed.—This market, for years in the lead as to supply and trade, both in cash and futures, has taken the initiative all winter, and to be in the clover trade it is essential to keep in touch with our prices.

Our elevator capacity is nearly 8,000,000 bu. and seed storage capacity (regular) about 100,000 bags.

ST. LOUIS STANDS IN THIRD PLACE.

[From GEO. H. MORGAN, Secretary of the Merchants' Exchange, St. Louis.]

St. Louis holds third place as a primary grain market. Located at the most central point of the Mississippi Valley, it draws supplies from the surplus grain states of the West and Northwest, as well as from the Central West.

St. Louis' facilities for receiving and distributing are unequaled, being the terminus of twenty-four steam rail lines and two electric roads, and at the confluence of three great rivers. It is supplied with ample elevator facilities and controls a fair proportion of the grain trade of the country.

It is the largest market for soft red winter wheat, being in the center of the belt in which the soft wheat is grown. Being a large milling center, it consumes a large amount of wheat in local mills and supplies many others in surrounding territory, and at times exports both wheat and corn to foreign countries.

It is a prominent market for corn and oats and largely supplies the consumptive demand in the South and Southeast.

Being one of the large brewing centers, it controls a large trade in barley, the receipts being consumed in the manufacture of beer and malt.

CINCINNATI OFFERS MANY ATTRACTIONS TO SHIPPERS.

[From C. B. MURRAY, Superintendent of the Cincinnati Chamber of Commerce.]

Several of our prominent grain receiving concerns have in the recent past enlarged their facilities for handling grain, so that our city is well provided with such facilities. For the year 1904 the arrivals of grain for the local business, exclusive of the through movement, represent a larger total than for any previous year, notwithstanding the deficiency in the wheat supplies. There are some conditions here which might be better, in the way of expense of switching for local deliveries in some instances, but there has been betterment in this particular, and there is likelihood of further improvement. The warehouses of concerns which are prominent in the distribution of grain, hay,

etc., for shipment to distant points, are favorably situated with reference to track connections.

Our city is naturally a distributive market for grain and hay products. Our merchants in this line of business have extensive trade arrangements and are equipped in a manner to favorably serve the interests of those who make shipments to such a distributive market, as well as those who look to such sources for supplies. They are governed by the rules and regulations of the Chamber of Commerce, which organization accords to non-members all the facilities existing between members for the appropriate consideration of differences which may arise in connection with its members, so that shippers are entitled to all the protection of their interests which are officially provided for members in matters furnishing occasion for dispute.

We are looking forward to further growth in this line of operation here, as a natural incident to the geographical position of the market, the enterprise and the reliability of those who are prominent in the business and the ample facilities which they command for advantageously handling such products.

CLEVELAND MAINTAINS A HIGH PLACE.

[From F. A. SCOTT, Secretary of the Chamber of Commerce, Cleveland, O.]

We are advised by those engaged in the trade that there have been during the past year no great changes in the facilities for handling and marketing grain, and that conditions have remained about as usual. There has been perhaps a somewhat better demand all along the line, and trading in general is good. Oats have been dull during this year, until a few weeks since, when the demand became more brisk, and the market is now very promising.

The grain committee of this Chamber consists this year of Messrs. C. G. Watkins, chairman, and president of the Cleveland Grain Company; Mr. Charles G. Clark, secretary the Union Elevator Company; Mr. James Handyside, of Handyside & Reding; and Mr. H. M. Strauss, of H. M. Strauss & Co. These gentlemen are following the example of their predecessors in keeping a careful watch over conditions in the Cleveland market. This oversight has been wise and effective.

It is rather gratifying than otherwise to be able to report no startling developments in the grain trade of this city. The business is one of the oldest and best established of the many enterprises of Cleveland, and steadily maintains its high place.

KANSAS CITY A HARD WHEAT MARKET.

[From E. D. BIGELOW, Secretary of the Board of Trade, Kansas City, Mo.]

Kansas City is distinctly the hard winter wheat market of the United States. Eighty per cent of the wheat raised in Kansas, Nebraska and Oklahoma is of the hard winter variety, and there is practically not any of this class of wheat raised in any other state; so that, while some hard winter wheat is handled at other centers, the great bulk of this wheat moves to Kansas City and is distributed from here.

The field from which this city draws its wheat embraces six million acres in Kansas, two and one-half millions in Nebraska, and one and one-half millions in Oklahoma and Indian Territory, a total of ten million acres, or seventy-five per cent of as much as the great spring wheat area in the Northwest and producing in a normal year 160 million bushels of wheat. The wheat trade of this vast area centers in Kansas City, making it the largest primary winter wheat market in the country.

As a result of the great quantities of wheat that come here for distribution, the capacity of Kansas City elevators has increased rapidly in the last few years, until now there are storage facilities here for almost nine million bushels of grain. The number of elevators, including those connected with the mills, is thirty, with a handling capacity of two million bushels daily.

The receipts of wheat in Kansas City in 1904



PORTRAITS OF SOME OF THE PRESIDENTS OF AMERICAN GRAIN AND PRODUCE EXCHANGES.

- | | | |
|---|---|--|
| 1—Norman Wight, president Montreal Corn Exchange Association, Montreal, Canada. | 5—H. J. Pierce, president Buffalo Chamber of Commerce, Buffalo. | 9—E. L. Southworth, president Toledo Produce Exchange, Toledo, O. |
| 2—Henry M. Whitney, president Boston Chamber of Commerce, Boston. | 6—Otto L. Teichmann, president St. Louis Merchants' Exchange, St. Louis. | 10—S. G. Courteen, president Milwaukee Chamber of Commerce, Milwaukee. |
| 3—D. M. Wylie, president Baltimore Chamber of Commerce, Baltimore. | 7—Amos B. McNairy, president Cleveland Chamber of Commerce, Cleveland, O. | 11—W. C. Goffe, president Kansas City Board of Trade, Kansas City, Mo. |
| 4—William I. Gear, president Montreal Board of Trade, Montreal, Canada. | 8—Adolph Woolner Jr., president Peoria Board of Trade, Peoria, Ill. | 12—W. S. Jackson, president Chicago Board of Trade, Chicago. |

were 40 million bushels; corn, 14 million bushels; oats, 4¾ million bushels; a total of 65,000 carloads of grain were received last year. Because of the great amount of live stock feeding in the Southwest, the corn receipts are moderate here as compared with Chicago, and still a fairly large business is done in the coarse grains.

On the Kansas City Board of Trade an active and stable trade in grain for future delivery is maintained, which is steadily expanding. It is the safest market in the country for hedging operations, because of the anti-corner rule which prevents the artificial movement of prices that so often occurs in other speculative markets.

The Kansas City milling interest is second to that of Minneapolis. Seven mills, with a daily capacity of 16,000 barrels, are in operation here, and the obvious advantages of this city for that business are attracting attention so that a continued growth of the milling industry here is confidently expected.

NEW ORLEANS EXPANDS.

[From FRED MULLER, Secretary of the Board of Trade, New Orleans.]

The grain business through the port of New Orleans during the season of 1904-05 has been an exceptionally satisfactory one. Notwithstanding the fact that the season is not as yet closed, the exportations through the port of New Orleans since December 1, 1904, up to and including February, 1905, amounted to 11,723,265 bushels of corn, as compared with the exports through Baltimore for the same period of 5,095,572 bushels and through New York 6,642,611 bushels.

The advantages of New Orleans as a grain market are to-day so well known all over the country that it is hardly necessary to dwell in detail upon the splendid facilities afforded by our city.

As in the past, New Orleans is in the grain business to stay, and anticipates a steadily increasing development in this branch, from year to year.

DULUTH AS A GRAIN CENTER.

[From H. B. MOORE, Secretary Board of Trade, Duluth.]

Location.—Duluth, at the head of Lake Superior, is some three hundred miles farther inland than Chicago; and, drawing a line from Green Bay to Lower California, the territory lying north and west of that line is nearer the former than the latter city with lake freight rates on commodities east and west substantially the same. It furnishes about 73 per cent of the commerce of Lake Superior passing through the "Soo."

Harbor.—Duluth has the finest inland harbor in the world. Its importance has been wisely considered by Congress, which has appropriated for its improvement since 1871 \$4,678,000, making it one of the safest harbors of refuge and enabling vessels of the largest class to load to their full capacity.

Elevators.—The total elevator capacity is 34,375,000 bushels, the elevators being equipped with modern appliances, handling grain either by rail or vessels, some of them on the Superior side of the bay, but principal offices of all located in Duluth.

Wheat.—First made its appearance in this market in 1870, the receipts for that year being 557,000 bushels. This commodity increased slightly year by year until 1884, when the receipts amounted to 16,400,000 bushels and in 1898 to 77,377,000 bushels.

Corn.—The first recorded receipts were in 1878, 379,000 bushels, which increased to 6,977,000 bushels in 1898 and gradually fell back in 1904 to 13,000 bushels.

Oats.—Oats first appeared in 1878, receipts being 15,000 bushels, increasing to 9,986,914 in 1904.

Rye.—Rye did not appear in any quantity until 1891, the receipts then being 34,000 bushels, increasing to 1,069,449 bushels in 1904.

Barley.—The first receipts of barley, in 1886, were 23,000 bushels, increasing to 8,436,317 bushels in 1904.

Flaxseed.—This commodity, which has since become an important factor on this market, first ap-

peared in 1886, the receipts being 20,000 bushels. The receipts of flaxseed have gradually increased to 15,327,003 bushels in 1904. The estimated production of the United States for that year, according to the reports of the Department of Agriculture, were 23,400,534 bushels, making this the flax market par excellence of the United States.

The total receipts of grain and flaxseed for the joint port of Duluth-Superior for the last thirty-four years approximate a billion bushels.

PHILADELPHIA AS A GRAIN CENTER.

[From CHARLES F. SAUNDERS, Secretary of the Commercial Exchange of Philadelphia.]

Philadelphia's position as the metropolis of one of the richest of American commonwealths, and its location in the heart of a region constantly growing in population and industrial and agricultural activity, make the city's importance obvious as a distributing center for domestic consumption. As a matter of fact, the merchants of the Commercial Exchange of Philadelphia, which is the official home of the city's grain, flour, provision, hay and feed trade, handle grain and feed for delivery as far north as New England and southward as far as Tampa, Fla.

Aside from the distributing trade, the local requirements in grain are large, as the city has a million and a half of inhabitants, and numerous flour mills which do an important out-of-town and foreign business.

The railroads that serve the city are the Pennsylvania, the Philadelphia & Reading (operating in conjunction with the systems of the Lehigh Valley, the New York Central, the Erie, the Lackawanna, etc.) and the Baltimore & Ohio. They maintain within the city limits elevators for domestic trade of an aggregate storage capacity of somewhat over a million bushels. Storage and insurance rates are moderate, and the official inspection, under the supervision of the grain committee of the Commercial Exchange, is thoroughly adequate and has long enjoyed an enviable reputation for reliability both at home and abroad.

Lines of coastwise steamers furnish water transportation to New York, New England, many ports of the Southern states and the West Indies.

Philadelphia also possesses every facility for the handling of a large export business; and, indeed, in active years, the city has exported upwards of forty millions of bushels of grain. The storage capacity of the export elevators aggregates about 4,000,000 bushels. Regular lines of ocean steamships connect the port with Liverpool, London, Glasgow, Avonmouth, Leith, Antwerp, Hamburg and Rotterdam.

THE GRAIN TRADE AT MONTREAL.

[From GEO. HADRILL, Secretary Board of Trade, Montreal.]

We have no open market at Montreal, the chief business being an export one. Montreal is at the head of ocean navigation, the inland craft which reach this port by the canal system here transferring their cargoes into the ocean steamers. The public grain storage accommodation is as follows: Grand Trunk Elevators (built and under construction) 2,125,000 bus.

Canadian Pacific Elevators..... 1,000,000 bus.

Harbor Elevator 1,000,000 bus.

The grain routes to Montreal are as follows:

All-water, from the Great Lakes via St. Lawrence River and canals, either direct in lake vessels of 80,000 bushels' capacity, or by transfer to elevators at Kingston, thence by river barges, varying in capacity from 20,000 to 60,000 bushels, which are discharged by floating elevators at Montreal into ocean steamers. The St. Lawrence canals have a depth of 14 feet and are capable of floating vessels carrying 70,000 to 80,000 bushels.

Lake vessels to Georgian Bay ports, such as Midland, Meaford, Collingwood, Owen Sound and Depot Harbor, also to Goderich and Sarnia, thence by Grand Trunk, Canadian Pacific or Canada Atlantic railways to Montreal.

The government has under construction at Port Colborne, Ont. (opposite Buffalo), at the head of the

Welland Canal, large elevator capacity, where the largest lake vessels will be able to discharge, and thence the grain will be carried by such vessels as can navigate the 14-foot waterways to Montreal.

The river channel from Montreal to the sea is 39 feet deep at low water, enabling vessels of 12,000 tons to trade to Montreal.

Vessels can be loaded direct from elevators. A system of conveyors is under construction on the docks so that four ocean vessels can load simultaneously from the harbor elevators without moving from their berths.

In winter the harbor of Montreal is closed from the end of November or early December to the second or third week in April, and during this period the ocean lines running to Montreal in summer go to St. John, N. B., and Portland, Me., through which ports large shipments are made by Montreal shippers via the Canadian Pacific and Grand Trunk railways.

The course of the grain trade of this port is shown by the appended table of total receipts and shipments of grain in bushels for years specified:

Year.	Receipts.	Shipments.
1904	19,888,087	13,919,735
1900	30,811,240	31,693,011
1890	13,040,173	9,213,359
1880	21,586,036	21,934,953

ST. JOSEPH, MO., MARKET GROWING.

[From T. J. BERRY, Secretary St. Joseph Board of Trade.]

The St. Joseph market is growing rapidly. The amount of grain handled here, by dealers having their principal office here, during the year 1904, exceeds by 42 per cent that handled by them during the year 1903. This is easily understood when it is explained that St. Joseph enjoys the same rates south, east and north that are in force at Kansas City, our neighbor and great competitor to the South, on whose prestige we are steadily gaining.

This market, in the past, has lacked elevator facilities, our present elevators being the Elwood, having a handling capacity of 75 cars per day and a storage capacity of 500,000 bushels, and the Maple Leaf, having a handling capacity of 30 cars per day and a storage capacity of 100,000 bushels. But this lack of elevator facilities will soon be entirely overcome by the erection of three 1,000,000-bushel capacity elevators, thanks to the determined effort of a committee of St. Joseph bankers, grain dealers and railroad men, headed by that congenial, broad-gauged, public-spirited citizen, Raymond Du Puy, president and general manager of the St. Joseph & Grand Island Railroad.

One of these elevators is now in process of construction on the C., B. & Q. by A. B. Brunswig, a local grain man, who has associated with him C. A. Dayton and C. R. Benton, both prominent grain men of Kansas City. It is said this elevator will be built especially with a view of having a large handling capacity—150 cars per day—with storage capacity of 1,000,000 bushels when completed; that the entire plant will be fireproof and will cost about \$300,000 when completed. It should and probably will be one of the most complete and modern elevators in the United States. The people back of this elevator have, for a long time, enjoyed a practical monopoly of the grain business of the C. G. W. Ry., whose elevator they have operated for a long time; and they expect to and probably will operate on the C., B. & Q. under equally if not more favorable conditions and advantages.

Another of the elevators will be built by the C. G. W. Ry., which line has long felt the need of additional elevator capacity, having on that account in the past been compelled to turn away a large volume of business. This elevator will be constructed of steel and be absolutely fireproof throughout. It will cost approximately \$250,000 and is expected to be ready for operation by the first of next year, although the work has not yet been started.

The third elevator is to be built by some outside interests, under the supervision of Frank

Kaucher of St. Joseph, one of the foremost elevator builders and engineers of the United States.

Altogether we feel very sanguine over the future of the St. Joseph grain market and believe that a much greater volume of business will be handled through this gateway in the future than in the past.

CONDITIONS AT BALTIMORE.

[From H. A. WROTH, Secretary Baltimore Chamber of Commerce, Baltimore, Md.]

The movement of grain during the past year has been most peculiar, and certain causes have operated to move the flow of the surplus product in given directions and through particular ports. So pronounced and decided have been these influences and so tenaciously has this policy been maintained by the railroads that energy, capacity and disposition to do business have counted for naught, and it is a matter of very great speculation to determine what the status of certain ports is which have heretofore enjoyed a large, lucrative and commanding business in the grain transactions of the country.

Baltimore has for a long period been one of the most prominent ports in the exportation of corn in the United States and in the world. The movement through this port has been on a large and imposing scale. Corn shipped under her inspection rules has found a ready market in all the important as well as minor distributive and consumptive markets of Europe; and not infrequently corn graded under the rules in force here has been given the preference over any competitive port. The past two seasons produced crops which were unusual in certain characteristics which distinguished them. More moisture appeared to be absorbed by the grain than had been usual in former years, and this feature greatly interfered with the keeping and carrying qualities of even such grades as "Prime (sail) Mixed."

This fact, in connection with determined efforts to divert corn to the Gulf, by certain railroads, has caused a large diversion of the grain traffic to Gulf ports; and, from what can be gathered from reliable sources, it is not simply a question of differential, but what rate is required to move the corn in that direction. Protests, earnest in tone and general in scope, have been placed before the railroad authorities by the entire grain territory east of the Mississippi River, and although so far unavailing, the fact is patent that unless some adjustment can be made in which the equities of the situation will be not only recognized but protected, not only Chicago and the Lake ports, but the Atlantic Seaboard ports as well, will cease to be important factors in the movement of the grain surplus of the United States.

The competition of Montreal on the north and the Gulf on the south is not a miasma, but a real, active, pushing, aggressive element, and the grain trade identified with the Atlantic ports is thoroughly alive to the difficulties of the position by which it is confronted.

Baltimore has a location which is unsurpassed as a seaboard port. With a depth of water allowing vessels drawing thirty feet to load immediately from the elevators, with ample trackage and yard accommodations, and elevator facilities which enable the grain to go immediately from the cars into the vessels almost; with her nearness and direct communication with the great producing states of the Central West, not to mention those west of the River, which often find this a convenient market to use; with steamship accommodation to the important distributive markets of Europe, and a personnel of the trade experienced and eager to compete on a fair basis with other markets—all these things go to make Baltimore a very important grain center, and which should be permanent as one of the great gateways for export grain.

The elevator capacity of the port is quite 5,000,000 bushels, which will compare favorably with either Atlantic or Gulf ports, with the exception of New York, and as determined efforts are being

made to induce the railroads to thoroughly equip the terminal elevators with driers, so that all off-grade corn may be handled in the most approved and economical manner, the one deficiency with which Baltimore has had to contend, viz., lack of driers, will be remedied.

Climatic conditions must always be a very strong element in Baltimore's favor in the shipment of corn, because a cereal like corn, which so readily absorbs moisture, can never with safety be moved from a cold climate, where it is produced, to a moist, humid, hot temperature, where it is shipped, without entailing serious risk in keeping qualities. The large use of driers has obviated this difficulty to some extent, but kiln-dried corn can hardly be as satisfactory to the consumer as the grain which is allowed to dry and season naturally.

The wheat of the past crop year, grown in contiguous territory, was of the very finest quality. Values have persistently ruled above an export level, and consequently Baltimore has done a very important traffic in shipping No. 2 Red Wheat to millers, scattered from Georgia on the south to New York on the north and Tennessee on the west. Every satisfaction has been derived by the users of this wheat, and only recently shipments were made which tested 61½ pounds to the measured bushel.

What the coming year will bring forth, so far as the wheat trade is concerned, is problematical, but, with a large crop produced in this country—the government report indicating a yield of 480,000,000 bushels of winter wheat alone—and a correspondingly large yield of spring wheat, there is needed only a place to put same, and it is to be hoped that foreign demand will be such as to meet this requirement. Should this be the case, all ports would doubtless have an encouraging and satisfactory trade during the summer.

FIRST YEAR OF THE OMAHA EXCHANGE.

[Condensation of Published Official Records.]

The first annual report of the officers of the Omaha Grain Exchange appeared on March 19, the Exchange having been organized in 1904 and opened for business on February 1 of that year. G. W. Wattles, president, in his report, among other things, says:

"A rate war for several months at the beginning of the Exchange increased the value of Nebraska grain from 1 to 6 cents per bushel and resulted in a permanent reduction of rates from Omaha and many Nebraska points to other markets. The fact established that grain could be stopped at this market and later forwarded to other markets without loss brought new competitors into the field for this grain for export. The roads leading to the Gulf suddenly realized that this traffic was within their reach, and by an alliance with large exporters and the establishment of a through rate from Omaha to foreign ports, were able to secure at increased prices a large part of the corn sold here during the past fall and winter. The Gulf ports are about 600 miles nearer Nebraska than the Atlantic seaboard and this fact, together with the fact that to the Gulf ports is a down-grade haul, permits a lower rate than could be expected by the longer and more difficult haul by way of the Eastern seaboard. This new route has been opened up for Nebraska grain by this Exchange. It has resulted in a decrease of carrying charges from Omaha to foreign markets of from 2 to 6 cents per bushel on all corn sold in this state since November 1, 1904. This has resulted in an increase of value to the producer of a corresponding amount. This increase of value has been established on all the grain in this state, notwithstanding the fact that a comparatively small amount has been or will be sold by the producers of the state."

A. H. Merchant, secretary of the Exchange, said in his report that—

In starting this Exchange, the first duty devolving on the management was the readjustment of freight rates on grain. After a bitter rate war this was accomplished and rates so reduced and readjusted as to permit of a grain market in Omaha such as should have been here years ago. We strongly contended that the through rates on grain from points in Nebraska to the Mississippi River, Chicago and common points, Minneapolis and also Gulf and Atlantic ports, should be on the basis of the added local through Omaha. In the final adjustment the rates were so made.

Giving the C. G. W. Ry. credit for forcing a re-

adjustment of rates, Mr. Merchant goes into the details of that readjustment, by virtue of which, he says:

We handled approximately 20,000,000 bushels of grain in this market the first twelve months of this Exchange. Not many, if any, of the exchanges can show as good a record the first year. With a crop raised yearly in Nebraska of from 350,000,000 to 400,000,000 bushels of grain, and with conditions right, we should receive 50,000,000 bushels of grain the second year of this Exchange, and a reasonable increase each year thereafter. We will, of course, draw a large percentage of the grain handled in this market from Nebraska. We can, and will, draw some from South Dakota, Iowa and Northern Kansas. When we have flouring mills in Omaha the same can be supplied with spring wheat from South Dakota, if desired. In my opinion, Omaha is a good place for a reasonable number of flouring and cornmeal mills, in view of the fact that grain in abundance can be had with which to supply them.

Omaha is so situated that grain can go to markets in all directions—that is to say, north, east, south and west. The lines running to the Gulf and Atlantic ports are all eager for this business, therefore our position is an advantageous one. Of course, the main factor is freight rates on grain, and the one that should receive the most attention. Two elevators of 1,000,000 bushels' capacity each are being built in Omaha, and others will be started in the spring. This gives assurance that we will be provided with ample facilities for handling the business.

MEMPHIS HAS BEEN BUSY.

[Condensed from Reports in the Memphis Cimitar.]

Memphis has about two dozen grain dealers through whose hands in 1904 there passed 400,000 bushels of wheat, 3,742,000 bushels of corn, 5,860,000 bushels of oats, and 1,157,000 bales of hay.

The local facilities for handling grain consist of two public and private grain elevators, as well as many private warehouses for carrying sacked grain and hay.

The grain men buy largely in the Northwest and West, while their selling territory is bounded by the Mississippi River on the west and the Tennessee state line on the north. They sell as far east as Georgia, though, owing to inability to secure favorable rates therefor, they have been unable to get into what is known as Carolina territory. The volume of business done from year to year is governed to a large extent by the amount of corn and oats and other feedstuffs raised in the territory in which the grain men do business. The more of these grown at home the smaller the purchase in Memphis and other distributing centers. Thus there is a considerable fluctuation in the amount of grain handled here, a fact which accounts for the apparent backwardness of the grain business during the past year.

The Hay and Grain Association, a subsidiary organization of the Memphis Merchants' Exchange, is now engaged in the formulation of rules and regulations designed to govern transactions in grain and grain products, the rules covering this business in the past, devised by the Merchants' Exchange, having been found inadequate. The inspection is controlled by the Merchants' Exchange.



"July and September"

Are the speculators' "favorites" now. Miss May is not sought after, Altho' the "Eastern Boys" still think well of "her."—Zahm's Circular.

[From Engineering, London.]

PROBLEM OF GRAIN PRESSURES.

BY WILFRID AIRY, M. INST. C. E.

[Concluded from page 502 of March number.]

Having thus discussed the principal points in the papers of Roberts and Janssen, we will proceed to a general explanation of the problem before us. When grain is filled into a bin that is closed, so that no grain passes out of it, it exerts a certain pressure on the sides of the bin, and a certain pressure on the bottom of the bin. The pressure on the sides can be computed with reasonable certainty, as will be shown hereafter, and the coefficients of friction of the grain can be determined by direct and independent experiment. So that, if we were sure that the whole of the friction which the pressure on the sides is capable of producing is in action, we could easily calculate the weight of grain that is held up by the sides, and thence deduce the weight that comes on the bottom. But with the condition that the grain is simply piled into the bin and allowed to settle there, and is not freed by being tapped off at the bottom, it is very unlikely that the whole possible friction due to the pressure on the sides would come into operation. The amount of the friction which would be operative would depend upon the elasticity of the mass of grain, and would no doubt be different for different kinds of grain. Consequently, to solve the problem, so far as this aspect of it is concerned, we must have recourse to direct experiment, or experiment combined with calculation. But if the grain in the bin be tapped off at the bottom from time to time, the determination of the pressures is more simple, and the problem can be solved without experiments beyond those of the determination of the coefficients of friction. For with all depths of grain that are in use it may be assumed that when the pressure on the bottom is relieved by drawing off grain, the whole of the friction due to the pressure on the sides will come at once into operation; and as we know the coefficient of this friction (from independent experiment), we can compute at once the weight of grain held up by the sides, and consequently the weight of grain carried by the bottom of the bin. So that there are two distinct cases of the problem of grain pressure, which may be considered as corresponding to the dormant pressure and the active pressure noticed by Roberts. It is true that Roberts did not intentionally draw off grain, but he slightly relieved the pressure on the bottom, and, at any rate, to a considerable extent produced the same effect as if he had drawn off grain; and it will be shown hereafter, in referring to the investigation of this second case, that the pressure on the bottom does attain a maximum for a certain depth of grain and then diminishes, just as was found by Roberts in his experiments on the active pressure. For the general understanding and elucidation of the problem of grain pressure, the second case, which can be investigated mathematically, is greatly more interesting than the first case, which can only be solved by experiment. And the two cases are equally important. With this general explanation of the problem we will pass on to investigations subsequent to those of Roberts and Janssen.

In 1897 the present writer presented a paper on the "Pressure of Grain" to the Institution of Civil Engineers, which was published in Vol. 131 of their Minutes. And a note on the same paper was published in Vol. 136. In this paper the second case of the problem, referred to above, was dealt with exhaustively. The pressure on the sides of the bin was calculated from the principle adopted by Weisbach in dealing with the pressure of loose earth, viz., that the lateral pressure is the maximum pressure due to a wedge-shaped mass of the grain, which may be supposed to separate from the general mass; and the angle of slope of the particular wedge-shaped mass which exerts the maximum pressure has to be determined. With this consideration, a formula is obtained for the pressure on the sides of the bin, which is fairly simple and manageable for a matter of such complexity. The formula,

of course, involves the coefficients of friction, both of grain upon grain, and of grain upon the sides of the bin, and these coefficients were obtained by independent experiments for most kinds of grain and for most of the materials of which bins are usually constructed. By means of the formula and coefficients a table was computed of the pressures on the sides and bottom of a smooth wooden bin, 10 feet square, holding wheat weighing 50 pounds per cubic foot; and from the figures of this table it is seen that the weight of grain carried on the bottom of the bin increases with the depth of grain, and attains a maximum value at a depth of 35 feet, after which it continuously diminishes, just as was noticed by Roberts in his second paper. So that, for every increase in the depth of grain over 35 feet, not only is all additional weight carried by the sides of the bin, but a portion also of the weight which was carried on the bottom at a depth of 35 feet is actually transferred to the sides of the bin. The general explanation of this phenomenon is as follows: A pyramidal mass of grain at the bottom of the bin receives heavy pressures on its sides from the surrounding mass of corn. These pressures compress the grain of the pyramid, and cause it to hold together by reason of the internal friction set up among the grains of the mass. And when the pressure on the bottom is relieved by drawing off grain, frictional forces will be set up between the sides of the pyramid and the surrounding mass of grain, which will tend to support the pyramidal mass; and, as the depth of grain in the bin increases, the vertical angle of the pyramid will diminish, and the pressures on the sides of the pyramid will increase, and the frictional forces will support more and more of the grain of the pyramid, and thus the pressure on the bottom will continually decrease. The precise depth of grain which will cause maximum pressure on the bottom is also given in a formula in the "Note on the Pressure of Grain," in Vol. cxxxvi., Minutes of Proceedings of the Institute of Civil Engineers; and in the case of a bin 10 feet square the depth for wheat is shown to be about 35 feet, as in the table. But if the values of the coefficients for peas be used, the depth comes out at about 80 feet for a bin 10 feet square, and for a bin 6 feet 9 inches by 6 feet, such as was used for Roberts' experiments, the depth would be about 52 feet. This explains why Roberts got no maximum value for the pressure of peas, for, as his greatest depth of grain was about 52 feet, his experiments would just fail to show it. The table also shows that the pressure per square foot on the sides, at the bottom of the bin, increases constantly, though slowly, with the depth of grain in the bin, and this agrees with the table for side pressures computed by Mr. Janssen.

Mr. J. A. Jamieson of Montreal read a paper on "Grain Pressures in Deep Bins" before the Canadian Society of Civil Engineers, in December, 1903. His results were obtained entirely by direct experiment, and to obtain them he used a square thin hydraulic diaphragm, which was fitted into a hole cut in the sides or bottom of a bin at points where the pressure was required, the inner face of the diaphragm being formed of sheet rubber, which was flush with the interior surface of the bin. The water inside the diaphragm communicated with a water pressure gauge, which recorded the pressure in inches of water. The advantage of this arrangement was that it could be fitted anywhere about a bin, and would register the pressure with an infinitesimally small movement of the rubber face, so that the grain in the bin would not be sensibly disturbed. The tables given in his paper all refer to grain in its dormant state—i. e., to grain piled into a bin and not drawn off at the bottom. He made a great number of experiments with wheat in wooden and sheet-steel bins, chiefly model bins, 1 foot square, and he took the pressures both on the sides and bottom of the bins. The pressure gauge was read to the 1-16 inch in every case, and to this degree of accuracy the results appear to be very reliable. He also made independent experiments to determine the coefficients of friction of wheat on wheat, and wheat on the vari-

ous materials of which bins are usually constructed. His pressure results fully confirm those of Roberts and Janssen; and he determined (for wheat) the useful relation between the vertical and horizontal pressures at the bottom of the bin when the height of the grain is six or seven times as great as the width of the bin, viz., that the horizontal pressure per square foot is six-tenths of the mean vertical pressure per square foot. He also determined in various cases the amount of the friction between the grain and the sides of the bin which was actually in operation and was supporting grain. And he made many useful remarks on the behavior of grain in bins.

The action of grain in bins is so peculiar that it has been found necessary to invent the term "laws of granular substances" to describe it. And the laws applicable to grain do, to a great extent, apply to dry sand and other substances where the particles have pretty nearly the same size and shape. Weisbach regarded grain as a semi-fluid, chiefly, it would seem, in respect of the following parallel. It will be seen in Mr. Airy's paper, already referred to, that in the case where a large area of grain of uniform depth (h) is retained along one side by a vertical retaining wall, the total pressure on the wall for a foot length of it is expressed by $\gamma \frac{h^2}{2} \times C$, where (γ) is the weight of

a cubic foot of the grain, and C is a constant for the kind of grain in question. This is the same pressure as would be produced by a perfect fluid weighing ($C\gamma$) pounds per cubic foot. And the horizontal pressure per square foot at depth of grain (h) would be ($C\gamma$) $\times h$. This property is, of course, akin to that of water, and to that extent justifies the term "semi-fluid." But the parallel appears to end with this case.

INSPECTORS APPOINTED.

Governor Hoch of Kansas has broken the record by reappointing John W. Radford, an appointee by a previous administration, to succeed himself as chief grain inspector of Kansas. Mr. Radford, in spite of his unfortunate recommendation that hopper scales be removed from public elevators in Kansas and track scales substituted, seems to have made a very satisfactory chief of the Kansas inspection and weighing office. We infer, however, from the statement of a Topeka organ that Mr. Radford's good record was not enough; for we are told that he "is secretary of the Republican County Committee in Wyandotte County and was indorsed by members of both factions at Kansas City. Most people who know anything about Wyandotte County politics consider that Mr. Radford must be a popular man if he suits both crowds at Kansas City. The place pays a salary of \$1,500 a year and traveling expenses."

A. F. Evanson of St. Peter, Minn., has been named by Governor Johnson to succeed Martin Lally, deceased, of Crookston, as a member of the State Board of Grain Appeals. There were several aspirants from the northwestern part of the state for the place, but the appointment was given to an old personal friend of the governor, says a local paper; so that the first of Governor Johnson's appointments was made for personal reasons. Mr. Evanson has been a grain buyer for twenty years and is competent. The office is worth \$2,000 a year.

Illinois corn crop of 1904 has been valued at \$110,324,583; its oats at \$32,364,250, and hay at \$25,018,810, by the State Board of Agriculture in its last report. The corn value is greater than that of any other crop in the state.

"The Southern routes are the natural gateways for export shipments of grain and manufactured products from Mississippi and Missouri River territory during the winter months," said Mr. Harahan, of the I. C. R. R. "Corn, unless thoroughly cured, cannot be shipped through such a hot climate other than in the winter without injury, but pretty much everything else is handled very successfully."

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

QUICK RETURNS FROM ADVERTISEMENT.

Editor American Elevator and Grain Trade:—We enclose you check for advertisement. Please send us enclosed bill receipted.

Discontinue the advertisement, as we have sold the machinery through the one insertion in your journal. We are greatly pleased with the good work your advertising columns have done.

Yours truly, J. W. FISHER & CO.
Cincinnati, O.

CONTINENTAL SEED REPORT.

Editor American Elevator and Grain Trade:—We beg to submit the following report:

Red Clover.—The high prices keep the buyers back up to the last moment; besides, France and England had more seed than it was thought first, which is the reason prices have fallen by several marks the hundredweight. The requirements in the spring will be extraordinarily large.

White Clover.—Good crops in all countries, therefore very low prices and fine qualities, which could very well be used for speculations at present.

Alfalfa.—We had a medium crop, but on the other hand an enormous demand, and in consequence stocks are much reduced. The market is firm and inclined to advance. There is still a large shortage to cover. We make a specialty of Turkestan alfalfa. We repeat our last year's warning against mixtures of Alfalfa with Chilian or Wool Alfalfa and Trefoil.

Yours truly, R. LIEFMANN.
Hamburg, Germany, March 7.

NEW HAY GRADES AT NEW YORK.

Editor American Elevator and Grain Trade:—Under instructions from our Association, I herewith enclose you a printed copy of the rules for grading hay, adopted by our body, applicable to the Greater New York markets, as follows:

Prime Hay—Shall be pure timothy, properly cured, bright, natural color, sound and well baled.

No. 1 Hay—Shall be timothy, not more than one-eighth ($\frac{1}{8}$), mixed with other tame grasses, properly cured, bright color, sweet, sound and well baled.

No. 2 Hay—Shall include all timothy not good enough for No. 1, fair in color, proportionally mixed with other tame grasses, sweet, sound and well baled.

No. 3 Hay—Shall include all hay not good enough for other grades, not over one-third ($\frac{1}{3}$) clover, but may be natural meadow, free from wild or bog, sweet, sound and well baled.

Shipping Hay—Shall consist of hay not good enough for No. 3, sound and well baled.

No Grade Hay—Shall include all hay badly cured, stained, thrashed or in any way unsound.

No. 1 Packing Hay—Shall consist of all fine grasses, of good color, free from flag and thistles, sound and well baled.

Fancy Clover Mixed Hay—Shall be bright, green, colored timothy and clover of medium growth, containing not over one-third ($\frac{1}{3}$) clover, sound and well baled.

No. 1 Clover Mixed Hay—Shall be timothy and clover mixed, with at least one-half ($\frac{1}{2}$) timothy, good color, sound and well baled.

No. 2 Clover Mixed Hay—Shall be timothy and clover mixed, with at least one-third ($\frac{1}{3}$) timothy, reasonably sound and well baled.

No. 1 Clover Hay—Shall be bright, medium growth clover, sound and well baled.

No. 2 Clover Hay—Shall be clover of fair color, sound and well baled.

No. 1 Rye Straw—Shall be bright, clean, long rye straw, pressed in bundles, in large or upright pressed bales, sound and well baled.

No. 2 Rye Straw—Shall be clean, long rye straw, of fair color, pressed in bundles in large or upright pressed bales, sound and well baled.

No. 1 Tangled Rye Straw—Shall be bright, clean straw, of fair length, sound and well baled.

No. 2 Tangled Rye Straw—Shall be reasonably clean, fair color, sound and well baled.

No. 1 Oat Straw—Shall be clean, bright, oat straw, of fair length, practically free from chaff and thistles, sound and well baled.

No. 1 Wheat Straw—Shall be bright, clean straw, of fair length, sound and well baled.

Very truly yours,

N. Y. HAY EXCHANGE ASSOCIATION,
Per E. D. Miner, Sec'y.

SUGGESTION AS TO THE NATIONAL ASSOCIATION.

Editor American Elevator and Grain Trade:—As a member in good standing of the Grain Dealers' National Association, I desire to make a few remarks in connection with the discussion as to reorganization.

While, perhaps, I am not as fully initiated into the detail workings as some of the other gentlemen who have expressed their views, a casual review of the conditions suggests to me that the field of usefulness for an association of this kind should rather expand than diminish, as appears to be the case in this instance.

Now, where is the trouble? Through experience, I have come to the conclusion that one of the great faults of organizations of this kind is that they want to tackle every little detail question and have their say-so in connection with it, instead of following up vigorously matters which become so vital to the interest of every grain dealer throughout the country that by necessity he feels he should become a member of the organization.

There is a case in point before me right now, especially since the National Hay Association is mentioned in connection with this discussion. The recent success of the latter Association is largely due to its thorough and efficient efforts under the leadership of our mutual friend, Mr. John B. Daish, in the fight against the uniform bill of lading. This was a fight to the finish; and, while others helped, the National Hay Association started the ball rolling and the credit is due to a great extent to that Association.

This is too busy an age to be wasting time on trifles. To accomplish results, it becomes necessary to have an effective working machinery, not of a stereotyped nature, but one which can map out a campaign of action, and then act, and not merely resolve.

The scope of the Grain Dealers' National Association is to-day anything but national. The South has not been covered by its influence; in short, its sphere is provincial.

Co-operation, to achieve best results, is essential; and if the National Association would confine itself to matters vitally affecting the interests of every grain dealer wherever located, the state associations undoubtedly would be ready to throw their influence into a campaign of this kind.

An effective association, carried on strictly on business lines, without much talk but lots of work, will succeed beyond expectation.

Yours very truly, FRED MULLER.
New Orleans.

HARD WHEAT DELIVERIES AT ST. LOUIS.

Editor American Elevator and Grain Trade:—On Thursday, March 9, 1905, the St. Louis Merchants' Exchange, by a vote of 515 for and 147 against, adopted an amendment to the rules permitting the delivery of No. 2 hard winter wheat on regular contracts for wheat for future delivery. The amendment reads as follows:

"On and after March 15, 1905, regular contracts for wheat for future delivery, except such contracts as require delivery prior to June 1, 1905, shall be for contract wheat, and on such contracts the tender of No. 1 red winter wheat, No. 2 red winter wheat, No. 1 hard winter wheat and No. 2 hard winter wheat shall be deemed sufficient; provided, that the delivery on each lot of 5,000 bushels shall be in whole either soft or hard winter wheat; and provided, further, that when hard winter wheat is delivered, three cents per bushel shall be deducted from the contract price. Nothing in this section shall be construed as permitting the delivery of hard wheat on contracts for red winter wheat; nor shall it be permitted to deliver soft red winter wheat on a hard winter wheat contract."

At last the long-time advocates of the "hard wheat rule" are rewarded with victory. Theirs has

been a long fight against heavy odds, with but little to encourage them except the conviction that they were working conscientiously for the best interests of the general market. And it is only fair to say that those who for years have vigorously opposed the accepting of hard winter wheat on contracts for future delivery were sincere in their opposition, believing it would destroy the prestige of St. Louis as a red winter wheat market. But, with the largely increased production of hard winter wheat in the surplus Western and Southwestern states, and its increasing popularity with domestic and foreign millers, the St. Louis grain and milling interests have become convinced that no market can attain great expansion that fails to accord this variety of wheat due recognition.

It was no trouble to carry the amendment, many of the millers and "pit" traders, as well as nearly all the grain receivers, working heart and soul for its adoption. As yet, there has been very little trading in the "new style" option, but this is due rather to lack of hard wheat to trade on than to any aversion to the new rule. When the new wheat crops of Nebraska, Kansas and Oklahoma are ready to market, then will St. Louis derive full benefit from the adoption of the "hard wheat rule." This description of wheat has long commanded relatively high prices in the cash market here, but the volume of business therein has been somewhat restricted through inability to sell for future delivery.

Yours very truly,
St. Louis, Mo. DANIEL P. BYRNE & CO.

UNIFORM BILL OF LADING ABANDONED.

Editor American Elevator and Grain Trade:—As a result of a conference in New York on March 8 and 9, at which were represented the carriers of Official Classification Territory and the complaining shippers, a stipulation was entered into by which the present proceedings before the Interstate Commerce Commission were to be indefinitely postponed. An agreement was also made, in which was provided for a committee of ten (five from the shippers and five from the carriers) to confer and agree upon, if possible, a bill of lading which would be satisfactory to all parties. All of the complaining shippers, except the National Hay Association, are parties to both the stipulation and the agreement. The committee on behalf of the shippers will be appointed within the next few days.

Mr. John M. Glenn, 528 Marquette Building, has issued a circular on behalf of the American shippers in which he has printed the agreement (which is printed below, together with the names of the shippers' committee).

Very truly yours, JOHN B. DAISH,
Washington, D. C. General Counsel N. H. Assn.

Editor American Elevator and Grain Trade:—I beg to hand you herewith a copy of a circular issued by the American Shippers' Association showing the result of our last conference with the railroads. The committee appointed in accordance with the agreement is composed of the following:

John E. Wilder, Illinois Manufacturers' Association.
B. A. Eckhart, Millers' National Federation.
A. J. Toomey, New York Produce Exchange.
O. P. Gothlin, Ohio Shippers' Association.
F. T. Bentley, American Shippers' Association.

CIRCULAR NO. 3.

To Shippers:—The carriers in Official Classification Territory have yielded to the position taken by the shippers in the bill of lading controversy. The agreement entered into on March 9, 1905, in New York, between representatives of the carriers and the shippers is as follows:

"This memorandum, made at New York, March 9, 1905, by the authorized representatives of the petitioners and of the respondent, the Uniform Bill of Lading Committee, in the investigation and inquiry pending before the Interstate Commerce Commission relative to the adoption of a proposed new uniform bill of lading,

"Witnesses, that the said parties have and do hereby agree as follows:

"1. The Uniform Bill of Lading Committee will

cause to be withdrawn in regular form the bills of lading and rules of Official Classification No. 26, and the bills of lading and rules and regulations thereto provided for in the Official Classification No. 25 will remain in effect (a ruling circular which will be a part of Official Classification to be duly filed for this purpose).

"2. That petitioners will join with the respondent in causing the said proceedings pending before the Interstate Commerce Commission to be indefinitely postponed, the petitioners reserving the right to ask that the hearing be resumed if the committee hereinafter mentioned does not reach an agreement (reasonable notice to be given to the respondent in case of such application for resumption of hearing).

"3. That petitioner and the respondent shall on or before April 1, 1905, respectively appoint five members each of a joint committee of conference consisting of ten members, which committee shall consider and arrive, if possible, at a just conclusion and settlement of this bill of lading matter. That the members of said committee, whether appointed by petitioner or respondent, shall be untrammelled by instruction and shall be free to reach a just conclusion of said matter according to their best judgment, and said committee of ten shall have power to add to its number by unanimous agreement.

In witness whereof this memorandum has been signed on the day and year before mentioned.

LEVY MAYER, of counsel for petitioner.

HENRY RUSSEL, of counsel for respondent.

Yours very truly, JOHN M. GLENN,
Chicago. Sec'y.

AMERICAN GRAIN BUYERS' ASSOCIATION.

Notice has been made in these columns of the organization of the American Grain Buyers' Association at Minneapolis in March. The object of the Association, as is stated in the Constitution and By-Laws, is "the promotion and advancement of the business and social welfare of its members by their mutual co-operation in all things tending to these ends."

The offices are those usual to such associations, including a manager and advisory board, composed of one member from every state division in the Association. The manager is the active executive officer of the Association. The officers serve for two years.

Local matters are put in charge of the state divisions, where there are such. State divisions may be organized where there are 100 or more members of the Association, residents of any given state. In that case the state members may organize a state association, to become affiliated with the general association.

Only persons of good moral character, experienced in the buying and grading of grain, and engaged in the business of buying grain on a salary, shall be entitled to membership. General conventions shall be held once in two years only, members of which shall be the delegates appointed by the state association, one delegate for every 50 members or fraction thereof.

The Association may conduct an accident insurance department upon such plans as it may in the biennial conventions adopt.

Under the By-Laws a member may be expelled for dishonorable conduct by the local advisory board, after hearing, subject to appeal to the general advisory board; the offices of secretary and manager may be held by the same person; officers of the general association (known as "chief" officers) may be removed for inattention to their duties by the executive council, consisting of a "chief" president, secretary, manager and advisory board, which body shall also fill official vacancies.

D. A. Stuart of Windom, Minn., has been made organizer, to hold office until every grain-raising state has been canvassed, said period, however, not

extending beyond the date of the biennial convention of 1907.

The first biennial convention will be held at Minneapolis on July 11, 1905. All persons joining the Association prior to July 1 will be made charter members.

R. G. HUNT.

The great generals who organize campaigns and, as the Japanese say, "prearrange" victories and set the alarms of the army clocks at the hour when great fortresses shall fall by assault or starvation, get the glory while living and the monuments in after years; but the non-coms and the privates do the hard fighting. So in all great enterprises there are the "men behind the guns," upon whose knowledge, experience, intellectual resources and capable initiative the "captains of industry" must rely for the execution of their plans and purposes.

Such a man, holding under Superintendent J. H. Hicks the place of foreman, a position of great importance in the economy of the business of Bartlett, Frazier & Carrington, operators of the Calumet Elevator Company's houses at South Chicago, is R. G. Hunt. Mr. Hunt is a native of the province



R. G. HUNT, CHICAGO.

of Ontario, where he was born in 1874, and in whose schools he received a good common school education. At the age of sixteen he came to Chicago and not long after (1892) went to work in an elevator for Charles Counselman & Co., with whom he remained until 1895, when he went to the Calumet Elevator Company. Here he has been continually employed since, with the exception of two years (1898-1899), when he was foreman at "Armour C," at Twenty-second Street and Chicago River.

For the past eight years, then, Mr. Hunt has been foreman in the Calumet Company's houses—four years in the "regular" elevators and four years in the "scalping" house, where he now is. This house has nearly a million bushels' capacity, and while it is one of the most modern cleaning and mixing elevators in America, it contains also a large Hess Grain Drier and also a grain purifier of large capacity, recently installed. The cleaning machinery in operation here consists of two Monitor and three Eureka Cleaners, three Eureka Clippers and a Prinz & Rau Smutter.

The technical knowledge the foreman of such a house must have would cover the entire range of grain handling and physical condition, while the responsibility for the output of the house is such that only a man of extensive knowledge and first-class executive ability would be able to "hold down the job," as Mr. Hunt has, for years.

A cement floor in the basement pays for itself every year in grain saved, besides being easier cleaned.—McCotter.

David W. Blaine of Kansas has revived the old project of making a canal from central Kansas to Fort Worth and thence by the Trinity River to the Gulf, tapping the Red, Canadian and Cimarron rivers for feeders. The estimated cost is only \$40,000,000.

PHILADELPHIA'S ARGUMENT FOR THE DIFFERENTIAL.

Arguments were made at Washington before the Commerce Commission on April 4 by counsel pro and con the Philadelphia-Baltimore-Newport News differentials which have been before the Commission for about a year. The history of the case and the general tenor of the arguments is pretty well understood in general terms. But the following extract from the brief filed by Silas W. Pettit, counsel for the commercial bodies of Philadelphia, will nevertheless be interesting. Arguing for the maintenance of the differential, Mr. Pettit said:

"Considering the city of Chicago, for the sake of brevity, as the origin, as it has always been the main point of concentration, of eastbound dead freight destined for the ports of New York, Philadelphia and Baltimore, and bearing in mind that originally grain furnished almost the whole of that freight, as from thence hitherto it has furnished the bulk of the tonnage, and that as the trade in flour, provisions and other products grew into existence they would naturally be carried by the same routes as the grain, it is to be remembered that at first the business of each carrier from Chicago was substantially confined to its own Eastern terminus, and that, generally speaking, Baltimore got only the business carried by the Baltimore & Ohio and Pennsylvania Railroad companies; that Philadelphia got only the business carried by the Pennsylvania Railroad; and that New York got only the business carried by the New York Central Railroad and the Erie Railroad.

"The lesser charge to Baltimore and to Philadelphia fixed by the agreement of April 5, 1877, has, except during the frequent periods of open rate wars, continued nominally in force until now, but was the subject of judicial inquiry by the advisory commission in 1882, and by this Commission in 1897, and on both these occasions the intimation by the New York interests was, as it now is, that said lesser rate of charge had not in fact been maintained, but had been abrogated or reduced by concessions by the carriers to New York; and it is notoriously the fact that almost continuously both the railroads and the commercial interests have complained that the difference was too much on the one side and that it was not enough on the other, by the one side that it was maintained and by the other side that it was not maintained.

"It is submitted, therefore, that the lesser rates from Western points to the three cities of New York, Philadelphia and Baltimore, which have prevailed since the initiation of railroad communication between those points, were originally just, and no more than sufficient to obtain a share of the traffic; that the differences have been reduced from time to time only as the natural result of increased facilities, better knowledge of the business, the general cheapening of transportation and of the largely increased tonnage moved, whereby the cost per unit has materially decreased; and that whether in time of railroad peace or railroad war these differences have been constantly maintained in respect to the great bulk of the traffic, and that the exceptions of special cuts in special instances have been as numerous by one line as by another, and as often in favor of one port as of another.

"It was conceded by all the witnesses who were asked the question that for their own local use the cities of Philadelphia and Baltimore were entitled to have their freight from the West delivered to them at rates less than the rate to New York, and that the differences now in force were reasonable. No claim was made by anyone that the carriers should change the existing rates upon traffic for local consumption. It is to be noted that this admission carries with it the admission that the distance carried ought, prima facie, to fix the rate for the carriage.

"The right of Philadelphia and Baltimore to a differential on the ex-lake grain is a necessary consequence of their right to a lesser freight rate on all-rail grain coming from the same points of origin, although by a different route.

"Of the three Eastern lake ports, Fairport and Erie are so much nearer and more closely connected with Philadelphia and Baltimore, that, naturally, those cities afford the cheapest route to the sea from those points, and this practically has never been questioned, but the tonnage coming that way is so inconsiderable as not materially to affect the trade. Buffalo is so much the largest point of concentration, and the extent of its tonnage so far outweighs the other two, that it alone needs any particular consideration.

"It is now almost a year since the order of inquiry and investigation was made in this case, and during all that time Philadelphia has been deprived of the right to compete for the ex-lake grain

trade of which she has always heretofore had some share, and it is therefore hoped that the Commission will endeavor to carry out its intimation of promise to promptly announce its decision in this case.

"The season of navigation is about to open, and delay is as harmful as denial to the interests of Philadelphia and Baltimore, which have always heretofore and do now seek to participate in the ex-lake grain trade, but are debarred therefrom pending the announcement of the Commission upon this 'inquiry and investigation.'"

The arguments made on this occasion were the conclusion of the case before the Commission, and they consumed several days. Abel E. Blackmar of New York occupied the greater part of the first day presenting the claims for New York harbor. John B. Daish of Washington, counsel for Baltimore, concluded the first day's session and used considerable of the second day to reply to the arguments advanced by Mr. Blackmar for the abolition of differential rates. Charles S. Hamlin of Boston followed Mr. Daish and objected to the differentials, and he was followed on the other side by Mr. Pettit. He was followed by Edgar J. Rich, general solicitor of the Boston & Maine Railroad, who argued in favor of the abolition of differentials; and he by Arthur George Brown, for Baltimore and the differentials. J. G. Carlisle closed the hearing with an argument for New York's interests. A decision is expected at a very early day.

PARDON ASKED FOR E. J. SMILEY

The many friends of E. J. Smiley in Kansas started a movement to influence Governor Hoch to pardon him and thus relieve him of the jail sentence which accompanies a \$500 fine for "forming a trust." As Mr. Smiley in no way profited from the alleged wrongs inflicted by the said "trust" at Bison, and as his case was purely a test case to determine the status of the law, common humanity would dictate that he might be let off, as is usual in such cases, by a nominal punishment only; but the farmers at Bison have no such "quality of mercy." It's a case of "soak him and soak him good." So they at once inaugurated a counter movement, declaring, as the prosecutor of Rush County also did, now he has won his case, that—

The object of this prosecution was not to test the validity of the law, but to break up the combination formed, and to, if possible, prevent others from forming or entering into such combinations to the great disadvantage of the farmers and wheat growers not only of Rush County, but of the state as well.

And so, too, the radical newspapers of the state threw what stones they could at Mr. Smiley and succeeding in "holding up the hands" of Governor Hoch, who has refused the pardon. "Mr. Smiley is a miniature Rockefeller," said Governor Hoch, in discussing the case. "If his methods were to prevail the farmers of Kansas would have received only \$20,000,000 for their wheat this year instead of \$60,000,000. I am glad we have a law that will protect the men who raise the wheat." This kind of swash from a governor of a great state gives one a nausea.

HARROUN TO BE TRIED.

The trial of W. H. Harroun, on charge of forgery, will begin at St. Joseph, Mo., in the Cincinnati court, on April 17. Meantime Mr. Harroun is "sawing wood" daily in his office. "The one ambition of my life," said Mr. Harroun to a local reporter, "is to pay my creditors every cent that I owe them. And that is what I will and can do if I am let alone to follow the line of business in which I am now and have been engaged. Not speaking egotistically, I thoroughly understand the elevator business and have made a success of it and can again, if given a chance. In the past year I have made money and it has or will be applied to the liquidation of my debts. I feel that my creditors are and should be the only ones interested

in this matter and it has been and is now my earnest intention to do the right thing by them. The impression has been prevalent that my liabilities run well up into the hundreds of thousands of dollars, but taking into consideration the assets of which I am now possessed I do not even owe \$100,000."

LARGEST DRYING PLANT.

There has recently been completed, and is now in operation at the elevators of the South Chicago Elevator Co., the largest grain-drying plant in the world. This is a No. 10 Hess Drier, with a capacity for handling 40,000 to 50,000 bushels of grain daily, the construction of which was begun

Stuyvesant Docks, this is the largest Hess Drier ever built, and, without doubt, is the largest apparatus of its kind ever installed.

RAILROAD LAW REFORM HEARINGS.

The Senate committee on interstate commerce, of which Senator Elkins is chairman, will begin hearings on the subject of interstate commerce law reforms at Washington on April 17. Mr. Elkins, it is said, has sent for all the prominent railroad presidents in the country to appear and testify upon the proposition that the government should exercise supervision of railroad rates. They will, of course, be expected to say that the proposition



HESS GRAIN DRIER, OPERATED BY THE SOUTH CHICAGO ELEVATOR CO.

in December last, and which was completed on March 1.

The construction of the Hess Drier is too well known to our readers to require description here, but even in this day of big things some of the details of this machine will be interesting. It takes 5,700 bushels of grain to fill the machine. When the fans are running, they drive 225,000 cubic feet of fresh air every minute through this grain. The air for drying is warmed to 150 or 160 degrees, to hasten drying, and in the bowels of this drier are found 27,000 lineal feet of 1-inch steam pipe to supply the necessary heat. The drier is made up of something like 30,000 separate pieces of metal, requiring about 80,000 bolts, besides thousands of rivets, to hold them in place.

The apparatus is supported on piles with concrete grillage, and is inclosed in a solid brick housing, in which all beams and columns are of steel, with tile roof and floors, thus completing a fireproof structure of the finest grade.

With the exception of a similar drier erected last fall for the Illinois Central at New Orleans, and recently put out of use by the burning of the

is "dangerous to the business interests of the country," but Mr. Elkins is said to be deeply impressed with the quite novel idea that when Congress adjourned only one side had been heard, and that was the side represented by E. P. Bacon, chairman of the Interstate Commerce Law Convention. Nearly all the testimony before the Senate committee at the last session was in favor of government supervision of rates, and one of the arguments for postponement by Senators Elkins and Kean was that such important legislation should not be framed and passed on the testimony of one side alone.

These hearings, which begin this month, will be as complete as it is possible to make them, a Washington correspondent says. The railroad presidents and their representatives will be out in force and the advocates of railroad legislation should be just as numerous. The sessions will be held in Washington until the hot weather sets in, when the full committee and sub-committee will go to various railroad centers and shipping points. It now seems probable that the hearings will continue with only brief interruption to the coming in of Congress in extra session in October.

STATISTICIAN HYDE.

Few names of those in public life are more familiar to the miller and grain dealer than that of John Hyde, statistician of the Department of Agriculture. It may not be generally known that the Bureau of Statistics is older by twenty-two years than the Department of Agriculture, of which it is now a part. Its organization into a bureau of the Department only dates from July 1, 1903. This bureau now has a Division of Domestic Crop



JOHN HYDE, STATISTICIAN.

Reports, over which Mr. Victor H. Olmsted presides, a former assistant statistician, and a Division of Foreign Markets, under the direction of Mr. Geo. K. Holmes, who was its chief at the time of its transfer to the Bureau of Statistics.

The office of statistician is no sinecure, so far as criticism is concerned. Individual interest often impels speculators to criticize harshly the monthly crop reports. Naturally, the crop reports cannot tell the facts as presented to it by its correspondents and summarize them into figures and conclusions without disappointing either the rampant bulls or the aggressive bears. Mr. Hyde has had a full share of hostile criticism, but this is more than compensated by the good faith attached to the reports by the great majority who understand that the crop reports are compiled from data furnished by a corps of correspondents larger than is possible in the case of a private bureau and without suspicion of interest in magnifying or depreciating the actual facts as to crop conditions.

THE CO-OPERATIVES.

A farmers' elevator company at Lake Park, Minn., will permit none but land owners to hold shares.

The Farmers' Co-operative Co. at Rosendale, Minn., has sold its real estate to H. L. Larson, who, as we infer, was once a stockholder.

After much overhauling of books the Farmers' Elevator Company at Morgan, Minn., found a surplus of \$100. The directors thought it was a loss.

The Galva Grain Elevator Company (co-operative), operating at Galva and Nekoma, Ill., closed up the year ending February 28, 1905, with a net loss of \$782.55. They had handled 349,138:04 bushels of corn, 315,255:20 bushels of oats and 2,180:20 bushels of rye.

At Cameron, Wis., the farmers are organizing a company to conduct a regular department store in every sense of the word, and buy all kinds of grain, hay, potatoes, butter, eggs, and in fact, everything the farmer raises. Mr. J. A. Young will be manager, thus adding a sixth to the various co-operative stores he is operating for Wisconsin farmers.

The Gardner grange, which has conducted a co-operative grain store at Gardner, Mass., for more than a year, has sold the business to W. M. Potter of Greenfield. Herbert F. Smith, manager for the grange, continues in charge.

The Garrett Grain and Coal Co., a farmers' company at Garrett, Ill., is defendant in a suit for \$16,000, brought by Greve, Slater & Co., bankers. The company is said to have gone about \$10,000 to the bad during the past year, and no one knows where the money has gone. The farmers who took stock in the company are expected to pay the loss. Leonard Hackett of Tuscola is now in charge of the business as receiver.

The property of the Tuscola Grain & Coal Co., including elevator, coal sheds, etc., will be sold by the master in chancery in May next. In the foreclosure suit brought by Bragg, Helm & Co., bankers, against the officers and directors, several defendants defaulted and the case was referred to the master, on whose report a decree of foreclosure for \$14,811.59 and costs and order for sale were entered. The company's property will not bring more than \$7,000 or \$8,000 in the market and there will remain a deficit of about \$8,000.

[For the "American Elevator and Grain Trade."]

VENTILATION OF GRAIN IN STORAGE AND TRANSIT.

BY A. W. BOARDMAN,

Secretary and Manager East Side Iron Elevator Co.

We have read with interest your report of the German expert on ventilation of grain in storage [See "American Elevator and Grain Trade," February number, p. 441] and believe he knows what he is talking about. If in shipping corn we knew there would be no moist atmosphere for it to pass through, then there would be good judgment shown by providing plenty of ventilation; but the fact is that the lake region is supplied with plenty of moisture, and it is best to keep cars closed.

We are the pioneers in steel storage, having erected the first steel tanks to store grain in (1894), and our experience is that grain can be stored in steel tanks and remain in good condition longer than in wooden bins. Of course, you know grain is something like a baby—it needs and must have constant oversight and care; but as between wood and steel, we pin our faith to the latter.

MINNESOTA FARMERS' EXCHANGE.

The Minnesota Farmers' Exchange held a meeting at St. Paul on March 23, and amended the by-laws in order to admit to membership delegates from local associations in the two Dakotas.

The association, which is said to be handling an average of four cars of grain a day, will try to buy a membership in the Minneapolis Chamber of Commerce.

New directors were elected as follows: O. G. Major, Hope, N. D.; J. S. MacDonald, Rush City, and H. C. Block, for three years; M. S. Blair, Emerald, N. D.; George E. Case, St. Peter, and F. L. Volk, St. Peter, for two years; W. Schultze, Valley City, N. D.; J. J. Furlong, Austin, and W. S. Weatherstine, West Concord, one year.

NEBRASKA GRAIN DEALERS' ASSOCIATION.

The annual meeting of the Nebraska Grain Dealers' Association will be held in Omaha at the Millard Hotel at 2:30 p. m., sharp, on Thursday, April 27.

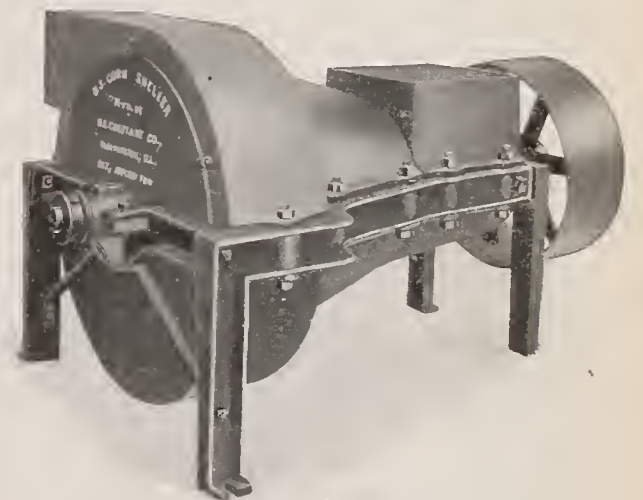
This meeting will come at a time when there will practically be nothing doing at country elevators and it is desired that every member be present to participate in the election of officers. Besides this, there are other important matters to be considered.

An experiment station is to be established at Chillicothe, Texas, for studies of grain and forage plants.

NEW IDEA IN CORN SHELLERS.

It would seem to be a difficult if not hopeless task to bring out a new idea in corn shellers that would really be new, and yet practical; yet in the United States Corn Sheller manufactured by B. S. Constant Co., Bloomington, Ill., that very thing has been done, and successfully. The improvements aimed at and which have been patented are: (1) to get the boot up out of the pit to where it can be easily cleaned out, and (2) to save the cost of this pit and the steel tank which are necessary when installing the old makes; for a sheller must set from three to six feet above the boot to make fall enough to get the corn and cob from the sheller to the boot. With the United States Sheller, all this expense of pit and tank, besides the labor attached of installing the heavy lower hopper connecting the sheller and boot, is avoided, as the casings in the United States Sheller are solid, and the shelled corn and cob go directly to the drum and are picked up by four propellers or blades (which are cast on the cylinder) which throws them out into the connecting spout to the boot.

To install the sheller one has but to set it in position, bolt it fast to the timbers on which it sets, and connect the discharge of the sheller to the elevator boot, or leg, with a long or short spout, depending on the location. There is no hopping underneath, and, therefore, in case of an accident, either of the lower casings can be removed without disturbing any other part. All that need be done is to remove the lower nuts from the bolts, take away the broken casting, replace the new one and nuts. In thirty minutes one can repair this sheller after receiving the new casting, while in old makes a man has to remove the feeder head, the top hopping, the top casing, the bearings and the very heavy cylinder and shaft before



UNITED STATES CORN SHELLER.

he can remove either broken casting or rods (in shellers using rods).

The United States Sheller is made of all cast iron, with chilled shelling surface, to make it wear well; and as the teeth and the shape of the casings and cylinder are similar to the standard shellers which have been a success for more than seventeen years, the shelling capacity is guaranteed. It is built in rights and lefts and to discharge from underneath as well as over, thus accommodating it to any location in both old and new elevators and mills.

The feed in the hopper is different from any other make, inasmuch as it comprises a number of teeth arranged on two collars to form a force feed, thus insuring a positive and steady feed to the shelling surface.

In one trial the United States Sheller handled 300 bushels of wet corn per hour, where the elevator owner said it looked like a "coffee mill," but who added, after seeing it work, that he was positive it would handle 400 bushels of dry corn in the same length of time; and all other tests made by the manufacturers and others demonstrate that the new idea is a success.

Further information will be supplied by the manufacturers on application.

GRAIN DEALERS' UNION.

The Grain Dealers' Union of Southwestern Iowa and Northwestern Missouri held its annual meeting on the afternoon of April 12 at Red Oak, Iowa. There was a fair attendance of dealers. Harmony is prevailing among members, and with a good crop outlook the year is promising for grain men throughout the territory covered by the association.

The election of officers was the most prominent feature of the session, and in spite of claims of President Hunter that he had served the association the full length of time due from any member and that he needed a rest from presidential duties, he was unanimously chosen to fill the chair the ensuing year.

E. H. Vanschoiack was re-elected vice-president, George A. Stibbens re-elected secretary, and the governing board was elected as follows: H. F. Leet, Maryville, Mo.; I. W. Shambaugh, Clarinda, Iowa; Jas. Gault, Creston, Iowa; A. Humiston, Humiston, Iowa; W. W. Pollock, Mexico, Mo.; John H. Wayland, Saulsbury, Mo.; D. N. Dunlap, Fontanelle, Iowa.

President Hunter called the meeting to order in the assembly room of Johnson Hotel at 2:30 p. m., and said that while he was somewhat disappointed at the smallness of the attendance he could not be so at the personnel of the dealers present. He thought members were on the brink of prosperity; prospect of larger crops was very much in evidence. Members should be watchful for the scoop shovel element, as in times like those which are approaching the scoopers are very likely to put in an appearance. With the receivers and commission men on the side of the Union, he did not think there was much to fear from this hurtful class of buyers.

In closing his remarks he asked all those having any grievances to mention them. As seemingly no member was troubled with untoward conditions, he asked for the reading of the secretary's report.

Secretary George A. Stibbens read his report and financial statement, as follows:

SECRETARY'S REPORT.

This is the ninth annual meeting of this organization and quite a number of those present have been members during the past nine years. Time has demonstrated the fact that grain associations are necessary factors in bringing about better conditions and higher ideals. The trade is slowly being educated and the dealer who is seeking information and progresses with the advanced ideas of the present will have great advantage over his competitor who is trying to conduct a grain business under the system in vogue twenty years ago. Conditions would be vastly better were it possible to have the united support of all members. If you supported association work with the same energy that you put into your private business, there would be a different story to tell. Quite a number of dealers are very exacting when they believe their rights are being infringed upon, but what about it when the other party is demanding just treatment from you?

Arbitration.—Our committee has had only two cases to decide during the past year, and in one the decision was against our own member and in favor of the receiver.

Arbitration is conceded to be the fairest way of adjusting grain differences, but there are people in the trade who refuse to arbitrate, and unfortunately a few of them have been identified with this organization. This class of dealers should be thoroughly advertised as a safeguard to the receivers in terminal markets.

There are instances where receivers persist in doing business with dealers who have refused to arbitrate, but they are exceptions to the rule.

Weight Certificates.—In shipping grain to terminal markets, quite often your commission merchants fail to send you certificates of weights with your account of sales. This is a negligence on their part and very frequently they are held back to avoid informing you where the grain was weighed. You pay for this service and are entitled to the weights, therefore you should by all means demand the certificates as well as the record of the condition of the cars on their arrival. In instances of shortages these records are very important and will assist you in collecting for them.

You desire to have certain weighing departments in different terminal markets to supervise the weighing of your grain, therefore, if you neglect to make the necessary demand you will never know where or by whom your grain has been weighed. You are vitally interested in building up in every terminal market a weighing department that is absolutely perfect, and one that will throw every possible safeguard around your property. The successful departments of this character to-day are those that not only weigh your grain, but make a record of the condition of all cars weighed, and keep a vigilant eye on all railroad yards and arrest and prosecute the grain thieves. You can materially assist the weighmasters in every market by advising them of the number and initial of your cars, the number of bushels loaded, if weighed by you, as they would receive the information in advance of the arrival of the grain, and would therefore make an extra effort in your behalf.

Most of your shortages are caused by your own carelessness in cooping cars or leakage in transit, hence it would be wise on your part to see that grain doors are properly placed in cars, as more grain is lost from leaky grain doors than all other sources combined.

The weighing departments giving the best satisfaction and the most accurate weights at this time are those under the jurisdiction of the boards of trade and exchanges, and the trade in general should register a vigorous protest against any state undertaking to usurp the legitimate functions of the grain trade.

Certain states recently have undertaken to secure legislation making it mandatory upon every shipper of grain to have it weighed by a department, controlled by the state, and these particular states have been maintaining a so-called weighing department for the past two years, and during all this time, it is said, they have never tested a single scale.

Scale Testing.—Some of the associations have inaugurated a system of testing country scales that should be adopted in this section, as it would no doubt save you a great deal of annoyance, as well as money. Your scales not having been tested for years, how do you know they are correct? I have known scales to be used in this section 20 years without being tested. If you would have an expert examine your scales three or four times a year you would have the satisfaction of knowing they were correct and the terminal man would receive much less abuse. If your scales are weighing too heavy, your customers will never inform you of it.

Contracts.—In making contracts for shipments of grain be careful that you fully understand the terms of the card bid or telegram before accepting them, as nearly all differences are brought about by a misunderstanding of the terms. In law, or arbitration, the postal card bid or the telegram you receive and your wire of acceptance constitute the original contract, and it will be well for you to bear this in mind and know positively that you have fulfilled your part of the contract. If you should make a sale for 20 days' shipment and for any reason were compelled to ask an extension of time and get it, see to it that the extension is for a specified number of days, as a contract cannot legally be extended for an indefinite period.

Landlord's Lien Law.—No doubt you are aware the Lien Law was amended by the legislature in this state a few years ago, making it a penal offense for a tenant to dispose of the crop and not apply the proceeds on the rent, but do not overlook the fact that the amendment did not change the landlord's lien in any way, and they can still compel the buyer to pay for the grain the second time if the tenant does not pay his rent. During the past winter you received from me a circular letter setting forth how you could relieve yourselves of all liability by issuing a check payable to the order of the tenant and the landlord, by inserting both of their names in the body of the check; then it would be up to your banker to secure the proper indorsements and relieve you of all responsibility.

Proper Selection of Seed Corn.—A campaign of education has been going on in this state for some time and the farmers have been convinced that it is to their interest to be more careful in selecting the corn they plant. Every grain dealer should become enthusiastic on this subject and talk it up with his customers, as it will benefit you as much as the producers.

Missouri Conditions.—Unfortunately Missouri did not raise much corn last year, consequently the dealers in that state were compelled to go to Nebraska and Iowa for what they needed. Conditions have not been as bad as two years ago, because dealers in Missouri have been inclined to patronize dealers in this state, but there has been some friction because some dealers have been disposed to ignore the rights of those in our sister state. Conditions have made it imperative that the grain trade in these two states work harmoniously, as

one is not independent of the other. The dealers in each state should make a special effort to cooperate with each other to bring about the best results. A great many dealers in Missouri have been benefited by our efforts during the past winter, and a great many of them realize it, and should that state raise a good crop the coming year, I believe it will be possible to bring about thorough organization.

Overdrafts.—Have you ever considered what a mean, small thing it is to make an overdraft on a shipment, and keep the money for a year or two, because you know the amount is so small the receiver cannot afford to go into court to collect it? And yet this is done in some instance all over the country. Is it any wonder that some receivers are slow to support associations when their members resort to such tactics? The only way we can hope to have the united support of the receivers in terminal markets is to deal fairly with them, and when we ask them to protect your business it is your duty to reciprocate at every opportunity. In cases where you have been protected by receivers against unjust competition, how many of you have shown your appreciation by giving them at least a small portion of your business? I assure you it will be greatly to your advantage to work harmoniously with receivers, as we must have their support if we get good results.

In a few instances our governing board has been compelled to suspend members for refusing to abide by arbitration decisions or for their refusal to arbitrate differences. I fear too many of you lose sight of the fact that it is impossible to conduct a successful organization without the united support of our members. A dealer is entitled to no sympathy when he agrees to abide by a decision of a committee and then refuses to do so if the case goes against him. A man brands himself as unfair when he refuses to arbitrate.

Legislation.—The reason the grain trade does not have more influence in legislative matters is because they are very negligent when called upon to write state or national representatives. When requested by secretaries to take up certain matters of vital importance only a small percentage respond, consequently the pressure brought to bear is weak compared with what it would be if all would act promptly. There are matters that you are deeply interested in, which will come up in extra session of Congress next fall, and unless the grain trade use all their influence it will be defeated.

Membership.—Our membership is smaller than one year ago, for the reason that the state of Missouri had a very short crop the past year, and dealers have had nothing to ship out and decided their business would not justify them in paying dues. The membership at this time is 115, representing 164 stations. We have had two suspensions.

The financial statement showed cash on hand March 1, 1905, \$215.32, with receipts for the year of \$1,622, making a total of \$1,837.32. The expenditures amounted to \$1,707.02, leaving a cash balance on hand of \$130.30.

On motion by E. H. Vanschoiack the report of the secretary and financial statement were accepted and filed.

Mr. Stibbens spoke of the present status of the new uniform bill of lading, and read a circular touching upon that question from John M. Glenn of the American Shippers' Association, which announced that the Eastern roads had abandoned the original uniform bill, and had agreed to meet a committee of shippers to formulate a satisfactory one. He expressed the opinion that a new bill of lading would be formulated which would be acceptable to shipper and carrier alike.

The question of weights in Illinois and Missouri was informally discussed, and the hope was expressed that the weighing bill in Missouri, at present before the governor of the state for his signature or veto, would receive the latter, and go the same way as the recent Illinois measure has.

C. M. Boynton, formerly of Creston, now of Kansas City, made a short address, in which he urged shippers to take greater care in making out invoices of shipment, by giving full information in same as to such details as car initials and numbers, kind of grain, when shipped, whether consigned, etc. It is desirable that the buyer or consignee should have as complete information as possible, and this should be furnished by the shipper.

Mr. Boynton closed by saying the latchstring in his office was always at the service of his old Iowa friends.

The better conditions in the Chicago inspection department under Scott Cowan were spoken of by Mr. Stibbens, who also told of the chief inspector's plans to still further increase the efficiency of the department.

The following dealers were in attendance:

D. Hunter, Hamburg; George A. Stibbens, Chicago; J. W. Barry, Clarinda; John G. Turner, Cumberland; Walter Stibbens, Prescott; J. W. Shambaugh, Clarinda; C. W. Boynton and C. W. Lonsdale, Kansas City; E. H. Vanschoiack, Elliott; W. W. Albright, Lewis; H. H. Savage, St. Louis; R. J. Edmonds, Hebard; A. P. Kilmartin, Malvern; Jos. Norton, Creston; Jas. Gault, Creston; M. Hennessey, Orient; O. A. Talbott, Keokuk; T. J. McCormick, Stanton; S. E. Wainwright, Lennox; T. S. Spencer, Afton; H. G. Abrahams, Prescott; S. E. Hicks, Osceola; J. C. Johnson, Burlington; W. B. Allen, Conway; W. Daugherty, Red Oak; T. A. Kile, Shenandoah; D. Gault, Cromwell; H. W. Talbott, Osceola.

IN THE LEGISLATURES.

Missouri.—A bill providing for the appointment of state weighing officials in all public elevators of Missouri was sent to the governor in April. The Kansas City Board of Trade sent a delegation to the capital to ask the governor to veto it.

A bill to prevent the use of wheat testers for weight has been killed.

A bill has passed the Missouri House that provides that every railroad doing business in that state shall receive and deliver grain and other freight consigned to it for transportation at crossings and junctions of other railroads, canals and navigable rivers; that they shall, at all cities and towns having a population of 200 or more, construct and maintain switches and freight houses for the receipt and delivery of grain and other freight that may be tendered for transportation, and shall stop at least one train daily thereat to receive and unload freight; and whenever, in the opinion of the Railroad and Warehouse Commissioners, the amount of business is sufficient to justify the same, such railroad shall maintain a freight agent for the purpose of receiving and the delivery of grain and other freight.

A demurrage bill has also passed the House that provides that railroad companies shall supply cars to shippers within four days from the time application is made; that shipments consigned to them shall be moved at a rate of not less than sixty miles a day; that upon the arrival of any consignment at its destination, the company must give notice by mail or otherwise; that the companies shall be required to deliver freight at their depot or warehouses within twenty-four hours after the arrival of a train, and carload shipments for track delivery are required to be placed at accessible points for unloading within twelve hours after arrival. It is also provided that shippers shall have forty-eight hours in which to load or unload cars of 60,000 pounds' capacity, and seventy-two hours for larger cars. After that time a demurrage charge of \$1 per day shall be paid, but the railroad companies are not to be required to furnish cars for future shipments to persons who either fail or refuse to pay this demurrage charge.

Nebraska.—The Kyd anti-grain pooling bill (modeled on the Kansas anti-trust law) was recommended for passage by the Nebraska House committee, but has met a snag in the opposition of the farmers' co-operative companies. The bill ostensibly seeks to prevent unfair pooling, or conspiring to pool, giving it the appearance of a worthy reform, which, as Mr. Kyd has stated, would benefit the farmers' co-operative elevators. The farmers' objection to the bill lies in the first section, where the words, "or to divide between them the aggregate of net proceeds of the earnings," etc., would prevent, so the co-operative elevator men declare, the very thing which the state association of independent elevators was organized to accomplish. The bill, therefore, instead of being in the interest of the co-operative elevator con-

cerns, is regarded as a most vicious but subtle blow at them, and in the light of this impression, which seems to be gaining ground among the farmers, the opposition to the bill has become formidable. In the Senate, where the bill was buried, an attempt to dig it up failed hopelessly on March 31, when its consideration was indefinitely postponed.

The conference committee of the Nebraska legislature has approved the Harsh bill for a law requiring railroads to furnish cars to grain dealers without discrimination, and to build sidetracks to elevators. The House amended it by inserting the provision asked for by the farmers' elevator companies, requiring the building of sidetracks to within four feet of the outer edge of the right-of-way, thus making it possible for an elevator built near the right-of-way to get trackage facilities.

Michigan.—The Michigan demurrage bill before the legislature provides that when the shipper specifies the nature of the freight shipped, the railroad company must place the cars at the disposal of the shipper four days following application for same. For failure to comply, the railroad company is to forfeit to the shipper \$1 a car a day, or fraction thereof, on all carload lots, and a comparative penalty for lots in packages, provided allowance is made for the transfer or rehandling of the freight at railroad stations. The bill, in short, is substantially the same as the Virginia law, now in successful operation.

A bill has been passed by the Michigan legislature providing that all buildings, including elevators, shall be not less than six feet distant from a railway track.

Illinois.—The Oglesby bill, which would have turned the Chicago weighing department over to the tender mercies of the politicians, has been killed.

Among the tommy-rot bills before the Illinois legislature is one prepared by Erby of Cook at the request of a farmer (who, probably, like Mr. Erby's friend, the late Henry B. Smith, had lost money dabbling in grain on the Board) that a bill be prepared to prevent a clique of millionaires from selling millions of wind for the farmers' honest grain. The said bill would prohibit the sale of grain except when the seller holds a warehouse certificate for grain or the grain itself. (And would the said farmer be forbidden to sell his corn and oats to the local dealer, to be delivered "tomorrow" or "next week"? Or would farmers be excepted?)

Among the railroad bills before the House is one offered on the very last day for the introduction of bills by McCaskrin of Rock Island, drawn at the request of the Illinois Grain Dealers' Association, creating a system of reciprocal demurrage. It is substantially a copy of the Virginia reciprocal demurrage law, to be enforced by the Railroad and Warehouse Commissioners, who are required to establish a schedule for the storage of freight in depots and for demurrage on car lots, etc.

Another bill by McCaskrin provides that the office of railroad and warehouse commissioner shall be elective instead of appointive from and after the general election in the spring of 1906.

Minnesota.—Two bills by Senator Thorpe have passed the Minnesota Senate. Under the one, warehousemen are prohibited from issuing other than the regular official receipts for grain; under the other is regulated the business of commission men, whose licenses may be revoked by the Railroad Commission for making false returns as to shipments.

A bill is before the Minnesota legislature providing that the owner of the warehouse or elevator, or the person in charge or control of it, shall report the number of bushels of grain stored therein on May 1, and shall pay the taxes on such grain as assessed by the regular taxing authorities, receiving a lien on the grain for the taxes so paid. The bill would make it a misdemeanor not to make the report required by the act, and perjury to make a false report.

The Minnesota Senate on March 20 passed the Municipal League bill permitting municipalities to

prohibit bucket-shops or bucket-shop agencies within their corporate limits. The House had already passed a general bill prohibiting bucket-shops anywhere in that state.

The Nolan reciprocal demurrage bill for Minnesota was passed by the House by a vote of 108 to 7, with an amendment equalizing time as follows:

"Should consignor or consignors load or unload cars in less than the time specified in this act, such unused time shall be considered as a credit to said consignor or consignors at one dollar per day for each day of the free time unused; and should the railroad company furnish empty cars to shippers within the said prescribed time, said railroad company shall be allowed a credit for the unused time to apply upon future cars ordered."

Also with an amendment offered by Representative Flower of Ramsey, making railroad companies liable for actual damages, instead of treble damages, in case of delayed shipment.

It is considered certain that the bill will pass the Senate by an equally decisive vote, though perhaps not as great a majority.

The row between the Railroad and Warehouse Commission of Minnesota, in control of the state grain inspectors, and the State Board of Grain Appeals, has reached a compromise, and the House committee on warehouses and grain inspection will report a bill accordingly. The Grain Appeals Board asked in their (Fraser) bill to name wheat samplers independent of the Commission. C. F. Staples of the Commission offered to permit the Board of Grain Appeals to select any two men from the force of grain experts in the service of his Commission to be used each as samplers at Minneapolis and Duluth terminals. This was agreed to.

The Minnesota House committee on March 31 reported for indefinite postponement the Hanaford and Block bills, requiring the weighing of grain on track scales at public elevators.

Kansas.—The new railroad law of Kansas is now in force and effect. The law gives "power" to the state Railroad Commission to control and adjust rates, which become immediately operative when approved by the Commission, but may be set aside by the courts.

Tennessee.—The Tennessee Legislature has enacted a law increasing the tax on grain brokers' business from \$400 to \$1,000 annually.

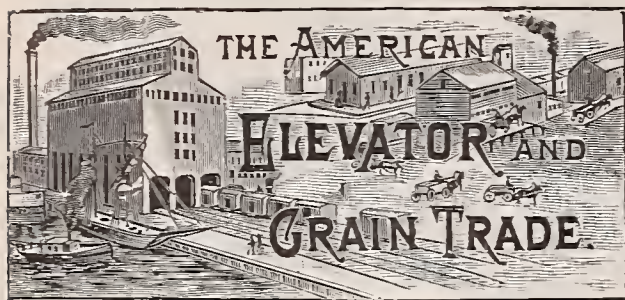
Wisconsin.—The railroad control bill in the Wisconsin Legislature on April 11 was passed by the House by a vote of 81 to 10. It provides for an appointive commission of three members and gives the commission power to institute new rates should those of the railroads prove unjust, and these are to remain in force unless the courts decide them unreasonable.

THE NEW ARGENTINE ELEVATOR.

The contract for the new 1,000,000-bushel grain elevator to be erected for the Santa Fe System at Argentine, Kan., opposite Kansas City, Mo., has been let to Witherspoon-Englar Co. of Chicago. As was stated last month, John S. Metcalf Co. made the plans for the elevator, which comprise a woodworking house of 310,000 bushels' capacity, a concrete storage annex of 720,000 bushels' capacity, a 1,000-horsepower plant and a drying plant. The working house will be one of the most complete transfer and cleaning elevators in the country. There will be four No. 17 Monitor Special Double Shoe Warehouse Separators and one No. 7 Prinz & Rau Iron Prince Scourer in the machinery equipment; a total of 18 elevator legs, four pairs of shovels and carloading spouts.

The drying plant will be so arranged that it can be driven electrically, thus enabling drying to be done night and day without running the entire power plant. The concrete storage annex will be contracted separately.

The railroad company is now putting in the foundations and work will be pushed so as to complete the working house by the middle of July and the storage annex sixty days later. The Harris-Scotten Co. will operate the elevator.



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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., APRIL 15, 1905.

Official Paper of the Illinois Grain Dealers' Association.

ILLINOIS INSPECTION REFORM.

Chief Inspector W. S. Cowen invited representatives of the Western grain dealers' associations and of the Chicago Board of Trade to meet with the Railroad and Warehouse Commission at Chicago on April 14 to consider his plans for grain inspection reform. This meeting occurred too late to be reported in this issue; but it may be said that Mr. Cowen proposed (and has had a bill introduced at Springfield to that end) to establish a sort of board of review, or body of grain experts, to supervise and correct the inspections made by the track men, there being on this board at least one expert for each kind of grain arriving at Chicago, and also a chemist. To these men, forming one body, there would be brought each day samples of all grain inspected during the day, both in and out, with the inspectors' records thereof, for revision, subject to correction by the experts before certificates should be issued. When changes in the first inspection should be made, the inspector would be allowed to explain; and in case this should be unsatisfactory, the man would expect to get his discharge.

This plan is similar to one in force in Minnesota for some time past with, we believe, satisfactory results. It should cause no delay in the issuance of certificates and ought to exert a wholesome influence on the working inspectors.

But best of all the invitation of Mr. Cowen was most encouraging as the first real sign from the grain inspection office that it is willing to admit the possibility of its fallibility or that any reform in methods or results could under any circumstances be desired by rational

men or, indeed, could be desirable per se. Now that the department has descended from this sublimated atmosphere, there is hope that reform is in sight; and Mr. Scott is entitled to the bouquets—whether or not his own plan should prove the best, he has shown his willingness to "make good."

ELEVATOR CONSTRUCTION.

The construction season opens early this year by nearly a month; and as crop prospects were never better at this date than now, there is every hope for a busy season ahead.

Elevator building, happily, has become an art and a science, in which strength, economy of handling grain and the cost of insurance are the really important problems which the designing engineer has to solve. For these are engineering problems strictly; and the grain man who builds for station or terminal use and relegates their solution to the barn builder, or even to architects inexperienced in this line of construction, may be inviting a blunder or possible disaster that may prove costly in cold cash.

Our contributors to this issue have told some of the story of the evolution of the grain elevator and dwelt somewhat on the structural and equipment requirements for both country and terminal conditions of safety and economy; and these suggestions of experts are commended to the careful consideration of prospective builders.

THE NATIONAL ASSOCIATION.

The directors of the Grain Dealers' National Association have named Niagara Falls and June 2 and 3 as the place and time for holding the annual meeting of the Association. In the May number of this paper the details of railroad rates, hotel accommodations and the like will be given.

The time and place should be propitious; physical conditions alone should compel a large attendance. But there is more than this. It is evident that there will be an effort made to change the Association's fundamental law at this meeting, and by abandoning the federation principle return to the original one of individual membership only. There are two sides to this question and concrete examples of associational success on both lines of organization, to wit, the National Hay Association and the Millers' National Federation.

The "American Elevator and Grain Trade" has consistently advocated the federation form of organization, because by it more people and more varied interests can be brought together in sympathetic co-operation and the actual work done at a less cost per individual than in any other way. The solidarity of the trade is the object of all national association endeavor; and that, this paper has believed, the federation principle would hasten rather than the individual one.

The weakness of the National Association at this moment is the inharmony of its parts; not per se the character of its foundations or its structural parts. Politics, some sinister meddling from the outside, some official jeal-

ousies in affiliated associations, some clashes of personal interests, the influence in some affiliated bodies of intolerant opinion of official duties and methods, the application of the starvation principle as a means of protest or of defiance—all these have had their influence in reducing revenue and balking the work during the past year. But even so, the householder who had a sound dwelling would hardly be justified in applying explosives to his property in order to put a stop to a disagreement among the members of his family.

However, this is only one view. It is not intended to be in the least dogmatic. The subject is one every grain dealer should think seriously of until June; and then he should make it his business to be at the Niagara Falls convention and act on his convictions of expediency and right.

RECIPROCAL DEMURRAGE.

The general assembly of Oklahoma has enacted a reciprocal demurrage law which is now in force and effect; the Minnesota House has passed a bill to the same effect and this bill is expected to become a law in the near future; Ohio has an agreement to reciprocate, entered into by carriers and shippers; Indiana also has just passed such a law to be in working order presently; while in Illinois, Michigan, etc., bills for similar laws are still pending in the general assemblies.

In no case do these laws, or the bills for laws, impose any onerous burdens on the carriers not equally to be borne by shippers for their part. All these laws, made since the Virginia law came to the test of experience, are founded on that act, and fairly distribute the duties of both carriers and shippers. They show that the representatives of the people have been moderate and reasonable in the face of unmistakable power to have been severe; only the tendency is unmistakable notice to the carriers that the President's day of a "square deal all around" has come in many states and will assuredly come in the control of interstate commerce.

THE MAY DEAL.

King & Co. take the remarks on the Boy Solomon's lucubrations on "Corners," in the March number, rather more seriously than they were intended. It was entirely foreign to the writer's purpose to insinuate anything unfair or dishonorable in the deal—entirely so, except in so far as to intimate that, as Zahm & Co.'s circular puts it, "Chicago May wheat is a rich man's deal," which small fry had better keep out of.

It was also an underlying thought that speculation in Chicago, under present conditions of inspection, has become quite risky for the hoi polloi. In a market where practically no contract grain arrives, except from private elevators, and where no shipper will accept grain on warehouse receipts unless it be acceptable to the private inspector who is employed to keep tab on the stuff state inspectors pass out, it is only the big fellows who may play the game when a "deal" is on like that in May

wheat; because it is rather more a "deal" than a transaction.

The history of this particular deal is public property now—late rumors lead to the inference that it may become still more public; but that remains to be seen. But at least it becomes more and more evident that Chicago's great speculative business can be restored to the magnitude it should have only by a reform in the inspection and by the creation of a true public warehouse system, entirely divorced, in name and fact, from all private interests whatsoever.

ANOTHER CASE OF FORGERY.

Another case of successful forgery of order bills of lading makes unpleasantly apparent how easy it is for rascals to rob banks and receivers of grain by means of drafts attached to such documents. So generous are the terms of credit in the grain trade to men who have established reputations as reliable dealers, that there is practically no limit to the opportunities of such men for plunder should they go wrong. The Harroun case startled the trade and the banks more by its boldness and its immensity than because the crime was unique; but the Ricketts case, recently reported from Cincinnati, is even more simple.

This last case will undoubtedly put banks and receivers more on their guard against rascals; they will probably take more pains to ascertain the character of the documents; but so long as the present practice of paying drafts attached to bills of lading in advance of the arrival of the cars continues, it is difficult to see how the American habit of rushing about to "find a remedy" can be effective to prevent losses by sporadic cases like that of Ricketts, who as a country dealer planned a "killing" and a disappearance, instead of making an overdraft to remain unpaid until payment should be forced by legal process.

As this paper goes to press, a meeting of receivers, called by C. B. Riley of the advisory committee of the Grain Dealers' National Association, is probably in session at Cincinnati to consider some better method of protection to receivers. This meeting may devise a remedy; it is to be hoped it will. But none will ever be more effective than a rule to pay nothing until the goods are in sight. Some honest men might suffer under such a change of custom, because it would require them to stand the loss of interest on the money involved during the period of transit, which is now a charge on the receivers. This change would, therefore, not be pleasant, especially to men of limited capital; but it would do much to revive shippers' interests in transportation delays by which the receiver is more often the loser than is the shipper of the grain himself.

At Cincinnati the Ricketts affair has suggested that the exchanges at Cincinnati, Louisville, Indianapolis and St. Louis adopt a rule prohibiting their members from paying drafts until positive evidence of shipment is forthcoming. One of the propositions is that the railroad agent, immediately upon the issuance

of a bill, either telegraph or mail a billing notice to the agent at the point of destination. In this way the receiver of goods who desires to pay for shipments upon the presentation of draft with bill of lading can verify the shipment by calling upon the local agent. This would be quite effective if the carriers would act upon the suggestion.

THE GERMINATING SEASON.

Mr. Scofield's article on "The Effect of the Germinating Period on Corn," printed on another page, should be practically suggestive to handlers of corn, and lead to a more systematic study by elevator operators of the moisture content of corn and its influence upon condition. Mr. Scofield himself, in a public document, published two or three years ago, and then reproduced in these columns, presented a simple method for ascertaining the moisture content of corn, which, while it was designed especially for the use of grain inspectors, is entirely practicable in country elevators, in the operation of which the usefulness of that knowledge is practically demonstrated by the article under present discussion.

As those who have been concerned in practical storage of other food products, and perishable articles of similar character, have learned by experience, moisture is a more destructive enemy than mere heat; for these articles seem to contain within themselves the specific ferments that need only moisture and a moderate degree of heat to effect their dissolution through fermentation; and it is so, as Mr. Scofield shows, with corn. Heat is of course necessary to the growth of bacterial ferments, but moisture is needed to a greater degree and its presence in dangerous quantity is hard to determine by crude rule-of-thumb methods—guesswork, that is.

And so in the handling of corn, or other grains, a reasonably accurate knowledge of the moisture content of the grain, as well as the degree of moisture that is safe under normal storage and shipping conditions, is absolutely essential to safe storage and to a rational judgment of how grain will—or should—grade at the terminal markets.

ANTI-TRUST LAWS WEST.

It is no laughing matter to Mr. Smiley to be compelled to spend 60 to 90 days in jail as a scapegoat in western Kansas; but certainly Governor Hoch has added nothing to the gubernatorial dignity by his ridiculous speech, on refusing Mr. Smiley a pardon:

Mr. Smiley, you are a miniature Rockefeller, and the law is looking for Rockefellers, and looking for them hard. If your conspiracy had succeeded all over the state, the farmers of Kansas, instead of getting \$60,000,000 for their wheat, would have received \$20,000,000.

Governors should make a pretense of dignified accuracy at least; and charging Mr. Smiley with the worst he is charged with, any such mulct of farmers by guilty grain buyers and millers is absurd—unthinkable.

But now the Kansas anti-trust law has been vindicated, what of the other side? In Nebraska, where Kyd wished to enact a dupli-

cate of the Kansas law, the farmers "shied." They didn't want it, because it would get their co-operative companies into trouble when combining to put prices up. Does the Kansas law in Kansas do less? And where in the game do those persons come in who enter into the promotion of combinations, called co-operative companies, which aim to prevent the trading of farmers with individual dealers by fining all members of such companies who do trade with individuals? Is or is not this a misdemeanor in Kansas—or Illinois or Iowa, for that matter? And how about these "equitable" societies of farmers who combine to make a minimum price below which they will not sell at all? Are they exempt from these "anti-trust" penalties? They are not in Illinois; are they farther west?

NATIONAL ASSOCIATION TRADE RULES.

In view of the approaching annual convention of the Grain Dealers' National Association, the chairman of the trade rules committee would be very glad to have the members of the Grain Dealers' National Association, or any grain shipper, receiver, miller or exporter, look over the present set of "Trade Rules" carefully, and offer any suggestions for modifications of existing rules, or for new rules, or additional rules, or elucidations of moot questions that should be covered by these rules. The committee will be pleased also to have members of the Association, or grain dealers, receivers, track buyers, millers or exporters submit questions for their consideration upon which a report is desired. These communications should be sent to the chairman, C. A. Burks, Decatur, Ill., at the earliest practicable moment.

UNIFORM BILL OF LADING.

The Eastern trunk line people have finally bowed to the West; and having formally abandoned a "uniform" bill of lading which was but a pretext for a 20 per cent advance in rates and to avoid liability as carriers, have agreed to a joint committee of carriers and shippers to formulate a satisfactory uniform bill. To this no shipper will object; rather all shippers who use bills of lading as collateral would welcome one of the right sort, as they would welcome also uniformity of the commercial laws of the several states.

But such a bill of lading should avoid the interminable phraseology and the blind references to esoteric "official classifications" and all other befogging particulars more characteristic of the methods of shyster lawyers devising a swindling contract than of the preparation of the documentary evidences of transactions between honorable business men. Such a bill the committee named will probably prepare; and uniformity of size and phraseology, and a frank recognition of the carriers' liability, will give it a hearty welcome by shippers, bankers, receivers and all others interested in the simplification of documents and the removal of unnatural friction in transactions between the carriers and the public.

EDITORIAL MENTION

Is corn worrying you, now the "germinating season" is on? Try drying and warming it before shipping.

A dealer in the Southwest has already sold "new crop" No. 2 red wheat, shipment first half of July, July basis as to price.

The merchants who go into the co-operative grain business are playing with hot fire; it is but a step to handling hardware, dry goods and the like.

The statement on page 534 that South Bend "had established Chicago inspection," etc., is, of course, a lapsus linguæ, since Illinois can have no jurisdiction in Indiana. The meaning, however, of the writer is obvious.

While the "seed corn special" has been going through Iowa preaching the economy of good seed, two representatives of Chicago Board of Trade commission houses are chasing after it, libeling the grain dealers of Iowa who are paying the bills, illustrating the ancient observation that "where the carcass is, there will the vultures be also."

Railroad employes are said to be planning a concerted action through their various organizations and brotherhoods to defeat legislation giving the government rate-making power, on the far-fetched assumption that in some occult way this wholesome legislation would reduce their wages. Some labor agitators seem to be "more kinds of a damfool" than even old Vanderbilt's son-in-law.

Senator Elkins insists the carriers' side of the railroad rate question has not been heard; and has summoned his committee on interstate commerce to Washington on April 17 to give the railroad presidents a chance to explain, doubtless, how dangerous to the "business interests" would be government supervision of rates. But railroading and running a water wagon in Wall Street in the neighborhood of the Stock Exchange are not the only "business interests" in the country, however they may "fill the eye" of New York.

The British Weights and Measures Association is waging a campaign against the metric system propaganda in that country. With all due respect to those insufferable protagonists of this metric fad, the schoolmasters, who make miserable the lives of countless little ones with their senseless wallowings in metric conundrums that rival the horrors of the Theban Sphinx, on the plea that perhaps sometime, in the far distant future, the United States Congress might stoop to the stupid folly of foisting the metric system upon this long-suffering people—with all due respect we

say, one would like to take the hand of these brave Britishers in sympathy and wish their protest God speed; and pray that their solemn declarations may find an echo on this side.

King & Co. are hard on Senator Clay, but not untruthful, when they say: "Senator Clay should be called Mud. He has been trying to pass a bill to prevent trading in futures. He lives in Georgia. He thinks speculation hurts the price. Farmers would suffer the most if it should be passed. It would restrict the demand. Futures enable all buyers to contract ahead and provide a demand when the crop is being marketed, thus helping the price." The trouble is that too many legislators need to have economic principles diagramed, and even then they don't seem to understand them.

The Governor of Illinois, like his colleague of Minnesota, gives no sign of an intention to appoint new railroad and warehouse commissioners. One hesitates, then, about projecting suggestions in that direction. But, if his excellency of Illinois will permit, when it does come to his turn to deal, will he kindly deal the Commission at least one man who knows more about the art of handling cash grain than he does of packing a political convention? It would be such a relief; and it might encourage the farmers to grow an article of corn or oats that the public would be willing to accept on a warehouse receipt.

The final word in the struggle to restore the old-time Philadelphia-Baltimore differentials has been said, and a ruling by the Commerce Commission is now expected daily. This differential problem is one that it suits the opponents of rate regulation to cite as a sample of the "minor" difficulties any body of governmental rate makers would encounter in their task of making equitable rates. And it is true, of course, that here is a problem; but is it so different now that the conditions of a quarter of a century should be arbitrarily reversed, when the old differentials were some measure of recognition of the physical conditions to which in all rate making some consideration surely should be paid? Everything cannot be expected to bow to the commercial needs of New York alone.

Discussing the problem of farmers organizing to control prices for grain, live stock, etc., a writer in Orange Judd Farmer (a journal that repeatedly roasts the grain associations as organized plunderers, or words to that effect) says:

The great farmers' organization to-day is the Grange. It has subordinate, state and national organizations. It is an organization that all classes of people to-day have confidence in. It can command capital. The national Grange has over \$80,000 in its treasury to-day. It is responsible. If this great organization could be induced to investigate and foster this idea of controlled marketing, I believe great results could be accomplished, and that it is a much more worthy project for the organization to grapple with than are political issues, which in the end are bound to cause internal troubles.

But it is probable the Grange officials recog-

nize that under the law such a procedure might bring them face to face with the bar of justice as conspirators—as "miniature Rockefellers," as the astute Governor Hoch puts it.

The Erby bill at Springfield to prohibit sales of grain for future delivery is not taken seriously, of course; the bill is preposterous, since it would simply destroy the Chicago Board and in consequence reduce the grain business of the world to chaos; for the world now does its hedging in this city. Mr. Erby's dead friend, whose estate he now administers, lost his fortune in speculation, it is said; but that is no indictment of the essential usefulness of the Board to the commercial world. Sales for future delivery must be made and contracts for such deliveries must be entered into if the business of the world is to go on. It is not unnatural for some men in difficulties to exclaim, as an earnest Frenchman did before the bar of the Convention, "I demand the arrest of all knaves and dastards," but the problem is to make the arrests without overturning respectable society while doing so.

Representative Oglesby has done the proper thing by killing his bill in the Illinois House to create the office of state weighmaster. When the bill came up on a special order on April 5, Mr. Oglesby said:

When I introduced this bill I believed it would remedy chaotic conditions in the state grain weighing office at East St. Louis. Since then I have been convinced that the measure would not work any improvement by taking control of the weighing from the Chicago Board of Trade. The Board's system is satisfactory to shippers, and after considering the matter fully I have decided to drop the bill. I move to strike out the enacting clause.

Without desiring to break a lance about a discarded proposition, Mr. Oglesby is reminded that there are no "chaotic conditions" at East St. Louis not of the Warehouse Commission's own making; and these could be removed instantly and absolutely by the Commission's withdrawal from an undignified and hardly defensible position.

The 'Frisco System and C. & E. I. have cut the knot at St. Louis by announcing their intention to absorb all switching and other charges at St. Louis, making St. Louis and East St. Louis rates identical. If, now, the service in moving cars across the river be made reasonably expeditious, these roads will have done St. Louis a memorable service. At no terminal in this country, perhaps, have the switching and transfer charges been higher and the service proportionately bad. The bridge and ferry monopoly has, indeed, been merciless and as inefficient as merciless; and although business men at St. Louis had sought in every direction for relief, the case seemed almost a hopeless one. The breaking of this inconsiderate monopoly will be of incalculable benefit to a market where excessive transfer charges and demurrage and a service that might mean one day or a month in getting a car of grain across the river in either direction had made shippers and receivers alike

all but desperate with the uncertainties that held their business as in a vise. St. Louis is certainly playing in great luck.

The politicians have slaughtered the merit bill at Springfield. It will be in order at the next election for the people to slaughter some of them. Will they do it?

Ricketts is said to have paid his note for \$4,500 at a Paris bank and to have also sent the wife and son he abandoned \$350 out of the \$13,000 stolen at Cincinnati and Louisville. Thieves' adjustments of equities are sometimes quite curious, as in this case.

The big and well-equipped elevator at Halifax, N. S., is an example of the fallaciousness of trying to create artificial currents of trade and commerce. The house is a municipal investment that has swallowed up \$50,000 of public money, to say nothing of interest; and during all the several years it has been ready to do business hardly \$50,000 worth of grain of any kind has passed through it.

The treasury department has refused to grant sophisticated wheat exporters a drawback on foreign wheat imported to be mixed with native wheat and then exported. This effort to find a mordant to carry American chicken feed and sheep fattener to British ports as a "special brand" of milling wheat, the department decided, "cannot be held to be a process of manufacture" within the meaning of the drawback law. But the treasury is "bloomin' partickler" on some points.

The Van Dusen-Harrington Co. of Minneapolis, Duluth, etc., have circulated through the Northwest thousands of circulars containing "Suggestions for the Selection and Preparation of Seed Wheat." Perhaps others have done so, too; but at any rate, the practice is most commendable, not merely because it brings valuable suggestions in concise form to those who most need them, but because it brings farmers, shippers and receivers into closer personal relations and is conducive of that good feeling and neighborly fellowship that should characterize all those directly or indirectly interested in the production of more and better grain and its distribution to the world's consumers.

The Car Service Association reports an income from Illinois shippers of \$209,360 from demurrage charges alone, of which only \$7,028 was refunded and of which \$182,299 was clear profit, to be divided among the 46 roads members of the Association. There have been attacks in the courts upon this Association, but it has in a recent decision received legal sanction. It only remains now to give detention of shippers' goods by the roads the same right to compensation without a lawsuit that the roads enjoy as to their cars. No matter what the cause is which prevents the unloading of cars within the specified time of forty-eight hours after arrival at destination, whether weather conditions, strikes or unforeseen circumstances prevent the consignee from remov-

ing his goods, the demurrage charges are collected through the agency of the Car Service Association. But, as has been seen in the case of the Sauers of Dana, it requires an expensive lawsuit to obtain a similar punitive compensation for the shipper which the carriers are able to collect without one.

Indiana is to be congratulated on the successful campaign for a railroad law which should satisfy both carriers and shippers, whose representatives drew the bill. Messrs. Union B. Hunt, C. V. McAdams and W. J. Wood have been appointed Commissioners and C. B. Riley secretary of the Commission, who will be ready for work on May 1. Thereafter Indiana will probably be something more than merely a way-station on the railroad map, whose shippers in the past had to wait for accommodations until all other shippers in interstate commerce had been served.

A jury in the LaSalle County Circuit Court recently gave C. G. Sauer & Son of Dana, Ill., a judgment of \$1,250 damages against the Santa Fe Railroad, for losses caused by delays of the company in furnishing cars for handling grain. Considerable interest was taken in this case throughout the state by other sufferers from similar delays and inefficient service by the carriers; and the effect of the judgment should be wholesome. The business of the common carrier is not so entirely a private one that the law will permit it to be managed in the one-sided manner certain railway men think is proper when it is inconvenient to do otherwise. The judgment, too, ought to hasten the making of a reciprocal demurrage law for this state that would define more clearly the respective rights of both parties under conditions when congestion necessarily causes delays that railway men themselves may deplore and which might be intensified by the shippers themselves.

Shippers at Springfield, Mo., opposed the movement in that state to reduce freight rates on the ground that they were satisfied, taking this position because it was believed lower rates would benefit St. Louis wholesale houses, rather more than they would Springfield merchants. It is true that the amount of the rates is not so important to merchants and shippers as their stability and impartiality; nevertheless, the consumer has some rights in this matter which it is hardly fair for shippers generally to antagonize, especially as in the final analysis the consumers', that is, the voters', influence will be the telling one in all efforts at railway control. Stability and impartiality of rates are the fundamental needs of commerce at this moment, not their reduction, perhaps; certainly not below a point that will produce sufficient revenue to enable the roads to perform their functions, make renewals and pay their debts and reasonable dividends; but that said, it is not reasonable that producers and consumers should be called upon to pay dividends on the oceans of water that "frenzied financiers" are nowadays injecting into railway stocks and securities, which represent

no benefits to the community, but only a burden.

A somewhat distinguished writer for one of those gushy papers that give boys tabloid pointers to a royal road to learning and wealth, discoursing on "The Association as an Economic Factor in Business," tells us that one of the duties of the grain associations is to steer off those bad men who go about the country working elevator men—sleek fellows who play the part of a sun-browned, horny-handed son of toil who has a jag of corn or oats to haul and asks an advance on the stuff from a dealer who never heard of him before. Such a campaign could not be successfully worked, we are sagely informed, among buyers who belong to an "asso." Probably not—let us hope not; nevertheless this is the first notice we have had that it is a part of association duty to furnish wet-nurses for kindergartners in the grain business.

The Illinois Railway Commission still dodges a decision on the Oregon red Russian wheat issue at Chicago, and in so far have favored the bull side of the "May deal." Daniel Byrne & Co. of St. Louis have ably stated St. Louis' position on this question in another column; but it was evident at the hearing some weeks ago that Chicago had no desire to "let down the bars" to the Oregons. The Commission is said to be divided in the question, for although there are three commissioners, there are only two live ones to do the work, and a tie is a block. In the meantime the Chicago Board has refused to allow the wheat to be delivered on contracts at a difference, there being really no milling demand for it here to warrant the creating of another variation in the potpourris the mixers have already run down to the limit of attenuation.

It is now some seventeen or eighteen years since railway pooling was permissible under our laws. In this length of time many railway men of that time have forgotten how that plan of "settling differences" and "adjusting rate wars" operated; while the younger railway men of to-day cannot remember, if they ever knew, how it operated. But no one acquainted with railway history will look to pooling as a panacea for "rate wars;" and a western railway man in the New York Evening Post recently explained why. He said:

If all the railroads intended to commence pooling freight again, on the old-time basis, their first act would be to meet and agree on divisions of territory. Each division must have a separate pool. In most instances, judging from experience, attempts to agree on such division would fail. Then the case would have to be submitted to arbitrators, who were supposed to be impartial and judicial. Sometimes, however, they would not prove so. A commission to act as a "clearing house" and administer the affairs of each pool had then to be selected. Returns were made from the freight bills, and a settlement was effected every month. If more freight had been carried by a given road than the percentage agreed upon at the start, that road had to turn over to the pool a check covering the amount. This was divided among all roads. There is nothing in the railroad world calculated to breed trouble like a freight pool. From start to end, it was nothing but quarreling.

TRADE NOTES

Honstain, Bird & Co., elevator builders of Minneapolis, have been succeeded by Honstain Bros.

The Charter Gas Engine Company of Sterling, Ill., have appointed Edward Racine of St. Cloud, Minn., agent for the Northwest.

The Stockbridge Elevator Co. of Jackson, Mich., are sending out a useful and beautiful souvenir in the form of a blotter with an aluminum shield.

The Hess Warming & Ventilating Co. of Chicago have sold the American Cereal Co., for their new plant at Cedar Rapids, Iowa, 10 Hess Pneumatic Oat Driers, having a capacity of 25,000 bushels per hour.

R. W. Dull, formerly head engineer of the coal handling department of the Link Belt Machinery Company, Chicago, has left them to assume the similar position with the Kingsland-Kay-Cook Manufacturing Company of St. Louis, Mo.

Trade is opening up very well with the Huntley Manufacturing Company of Silver Creek, N. Y. They have a very nice line of large orders and inquiries have been better than for some time. They are looking for a very busy season in their various lines.

H. W. Caldwell & Son Co., with headquarters at Chicago, are now exclusive selling agents in the United States for the genuine Salem Elevator Buckets manufactured by the original manufacturer, the W. J. Clark Co., Salem, Ohio. The company's advertisement announcing this important acquisition appears on page 525 of this issue.

In the Atlas Car Mover the Appleton Car Mover Company of Appleton, Wis., have one of the best tools for the purpose ever offered to the trade. At each stroke the Atlas moves the car a considerable distance, and does it with very little effort on the part of the operator. The device gets under the lowest brakes. Descriptive literature, giving price, etc., may be had by writing the company direct.

William E. Smith, sales agent of the Richardson Scale Co., reports business booming. Among late sales he reports four additional scales to Pabst Brewing Co.; four more scales to Rosenbaum Grain Co.; Liberty Mills, Nashville, Tenn., 7,000-bushel hourly capacity scale; Zorn Grain Co., Le Roy, Ill.; Witherspoon & Barr Co., Princeton, Ind.; Young & Brandt, Peotone, Ill.; Capital Grain Co., Nashville, Tenn.; David Stott, Detroit, Mich.

The Barnard & Leas Manufacturing Co. of Moline, Ill., so well known to the flour mill and elevator trade, have recently established a department for the building of grain elevators. They are prepared to build these in wood, steel, concrete or combination materials, with all the modern equipment necessary for up-to-date elevators. Mr. Barclay G. Mering, who is in charge of this department, has had a wide experience in the designing and building of grain elevators, and has been connected with some of the best known elevator builders in the country.

Younglove & Boggess Co. of Mason City, Iowa, have just issued an attractive booklet of 24 pages showing halftone cuts of a few of the elevators they have built, and also facsimile testimonial letters that they have received from satisfied customers. The front pages of the booklet are devoted to some sound advice on the subject of elevator construction. The booklet is in two colors, with special cover design. Copies will be sent free to those who make application for them. Among the Younglove & Boggess Co.'s latest contracts is one with the Walter-Bowman Elevator Co. of Mankato, Minn., for a 16,000-bushel elevator at Grogan, Minn. This house is to be equipped with a 6-horsepower Lennox Gasoline Engine, a 4-ton Fairbanks-Morse Dump Scale and a 60-bushel hopper scale of the same make. They have also closed

a deal for the complete overhauling of the Walter-Bowman Elevator Co.'s cleaning house at St. Peter, Minn. A number of new cleaning machines will be installed.

The new elevator which the Santa Fe road is erecting at Argentine, Kan., for the Harris-Scotten Co. will be furnished with a No. 6 Hess Pneumatic Grain Drier and Cooler. This machine will have a capacity of about 12,000 bushels daily and will be used chiefly on corn for export and for the Southern trade.

McDonald Bros. of Pleasant Hill, Mo., were the original manufacturers of pitless scales, and now after a hard fight against strong competition have the satisfaction of seeing their competitors advertising pitless scales, thus tacitly endorsing the ideas of the pioneer builders of this type of scale. The Economy Pitless Wagon and Stock Scale, made by McDonald Bros., has been on the market for 15 years and has the enthusiastic endorsement of thousands of users, including many elevator owners and millers. The advantages of a wagon scale for which it is not necessary to dig a pit are very apparent.

Among new contracts reported by the Stephens-Adamson Mfg. Co. of Aurora, Ill., is that of the entire machinery equipment for the new 1,000,000-bushel elevator of the Lake Shore Railway at Indiana Harbor, Ind. It will comprise about six carloads. Complete belt conveyor outfit for the new Santa Fe Elevator at Argentine, Kan., with five of their large-sized trippers. Belt conveyor machinery for the belt conveyor system for the Grand Trunk Ry. Elevator at Montreal, Que. They will also furnish 10 large terminal elevator boots for this house and all the power transmission machinery for the belt gallery.

The Cleveland Elevator Bucket Company, 225 St. Clair Street, Cleveland, Ohio, will send their descriptive price list to any elevator owner who will write for it. This list gives sizes and prices and instructions as to ordering buckets. It also contains cuts showing the construction of the "Fuller" Patent Steel Elevator Bucket. This bucket appeals to many because of its great capacity. It is made of open hearth polished steel, which gives it great strength, and in addition it is reinforced by the flanges on the end pieces, so that it does not require band iron around the top or brace across the center to stiffen it.

The April number of Graphite, the Joseph Dixon Crucible Company's interesting monthly publication, is a special illustrated edition containing many hitherto unpublished illustrations of notable buildings and bridges in different parts of the world. Of especial interest to elevator owners will be the pictures of a number of large grain elevators. All these houses are painted with Dixon's Silica-Graphite Paint, and from all accounts this paint has been found an excellent one for elevators and warehouses. Those of our readers who are interested in good paint will do well to write for a free copy of the April Graphite. It is one of the few house organs that are worthy of serious consideration. Well edited, bright and chatty, it is readable from cover to cover.

The American Manufacturing Co. has issued a fourth edition of its treatise on rope driving and in doing so has changed its name from "A Little Blue Book on Rope Transmission" to "The Blue Book of Rope Transmission." The new title is more in keeping with the character of this book, which has been generally adopted as a standard by mill engineers and as a text book in many colleges. The first edition was issued in 1898, and owing to the great demand for the book it became necessary to issue a second edition in 1900. This was followed by another edition in 1902, each work being enlarged and improved. The fourth, and present, edition is still larger than its predecessors and contains the last word on the subject of rope driving. To make this book practical and thoroughly abreast with the latest improvements, the American Manufacturing Co. has spared neither pains nor expense. The services of an experienced

engineer were secured and he was instructed to visit every prominent designer of rope drives, and plants where rope drives were in operation; to meet and discuss with those in actual charge of these drives their peculiar features, the proper method of overcoming any difficulties that might exist, the particular properties a transmission rope should possess to give best results, and all other questions pertaining to a perfect knowledge of rope driving. The tour of inspection covered a period of two years, during which the engineer visited every drive of importance in the United States and Canada, east of the Rocky Mountains. This study of American drives was also supplemented by a visit to plants in the important manufacturing cities of Great Britain, Belgium and France. The result is a work on rope driving that is authoritative and exhausting. It should be in the hands of everyone who is interested in the subject of transmission rope. Requests for copies should be addressed to the American Manufacturing Co., 65 Wall Street, New York.

Something entirely new and "down to date" in the way of a cipher code for the grain, flour and feedstuff trade will shortly be placed on the market and, judging from proof sheets now in our possession, will be the means of cutting down telegraphic expenses more than half, besides making the ciphering and deciphering of messages much easier than with any other code now in use. Every cipher word in this code consists of just five letters and is easy of pronunciation, being always in two syllables, like "binla," "monet," "tabbi," "sulut," and in long messages or in cablegrams any two of these words can be combined into one, making a ten-letter pronounceable word like "binlamonet," "tabbisulut" (which come within the cable and telegraph rules), thus expressing two sentences in one word. Since of course every user of the code understands that none but five letters are used, the receiver has no difficulty in properly dividing the words and translating them separately. This, however, is not the only economy practiced by this code, for the fact is that nearly every one of these five-letter words expresses more than is ordinarily expressed by one cipher word, by ingeniously arranged tables: for instance, the sort, location and grade of any commodity is expressed in one five-letter word, and it is all simple and without complication, so that anybody can handle the code. The arrangement of sentences is also quite unique and will please the busy man. Each subject, like "buying," "shipping," "selling," "orders," etc., is handled separately and most thoroughly and then the sentences are again subdivided under the headings of "affirmative," "negative," "interrogative" and "indefinite and conditional." The sentences under the heading of "Market" are subdivided under "upward," "downward," "supply," "stocks," "demand," "receipts," etc., and other appropriate subdivisions are made on such subjects as "quality," "railroads," "routing," "insurance," "quantity," etc. Users of cipher codes will readily understand how very easy it will be under these subdivisions to instantly locate what is wanted; the saving of time in making up messages will fully equal the saving in the number of words on which telegraph toll has to be paid. The publishers, Peycke Bros. of Los Angeles, Cal., whose advertisement appears on another page of this issue, show that they have considerable experience in getting up cipher codes, and that they understand the needs and wants of busy merchants.

Red rice is unmarketable for domestic purposes; but growers on the Gulf Coast have discovered that it makes excellent feed for mules and horses.

The Illinois Railroad and Warehouse Commission will hear testimony at Springfield on May 16 on the proposition to reduce freight rates in this state.

A corn-growing contest has been started in Newton County, Georgia, by Emory College, for school children, the prizes to be awarded along in August or September, next.

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, April 8, 1905, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Baltimore.....	427,000	542,000	180,000	102,000	.....
Boston.....	14,000	865,000	166,000	.....	.....
Buffalo.....	1,811,000	.....	468,000	585,000	1,002,000
do. afloat.....	.....	.....	.....	.....	.....
Chicago.....	1,571,000	3,724,000	2,475,000	152,000	1,000
do. afloat.....	.....	226,000	135,000	.....	.....
Detroit.....	366,000	51,000	12,000	5,000	4,000
do. afloat.....	.....	.....	.....	.....	.....
Duluth.....	4,814,000	75,000	5,187,000	178,000	391,000
do. afloat.....	40,000	.....	.....	.....	.....
Ft. William.....	4,553,000	.....	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
Galveston.....	87,000	395,000	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
Indianapolis.....	177,000	92,000	72,000	.....	.....
Kansas City.....	998,000	226,000	159,000	.....	.....
Milwaukee.....	667,000	371,000	365,000	2,000	148,000
do. afloat.....	.....	.....	.....	.....	.....
Minneapolis.....	10,724,000	81,000	3,552,000	66,000	1,002,000
Montreal.....	75,000	32,000	126,000	.....	82,000
New Orleans.....	.....	230,000	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
New York.....	515,000	1,254,000	359,000	148,000	106,000
do. afloat.....	30,000	.....	23,000	.....	.....
Peoria.....	.....	100,000	1,357,000	15,000	2,000
Philadelphia.....	6,000	317,000	67,000	.....	.....
Port Arthur.....	1,893,000	.....	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
St. Louis.....	2,175,000	152,000	693,000	2,000	18,000
do. afloat.....	.....	.....	.....	.....	.....
Toledo.....	120,000	247,000	254,000	8,000	.....
do. afloat.....	140,000	.....	.....	.....	.....
Toronto.....	17,000	.....	14,000	.....	.....
On Canal.....	.....	.....	.....	.....	.....
On Lakes.....	177,000	.....	.....	.....	.....
On Miss. River.....	.....	.....	.....	.....	.....
Grand total.....	31,697,000	8,980,000	15,614,000	1,263,000	2,756,000
Corresponding date 1904.....	31,180,000	9,599,000	10,342,000	945,000	3,013,000
Weekly Inc.....	.....	190,000	.....	.....	.....
Weekly Dec.....	630,000	.....	698,000	26,000	107,000

FLAXSEED AT CHICAGO.

The receipts and shipments of flaxseed at Chicago during the 20 months ending with March, as reported by Chas. F. Lias, flaxseed inspector of the Board of Trade, were as follows:

Months.	Receipts.		Shipments.	
	1904-05.	1903-04.	1904-05.	1903-04.
August.....	277,990	345,226	200,620	97,809
September.....	310,000	102,620	119,049	162,900
October.....	475,600	530,960	34,776	166,419
November.....	315,900	708,953	22,103	44,057
December.....	353,000	250,979	10,455	78,274
January.....	123,300	307,976	29,029	90,906
February.....	161,100	212,736	37,924	60,764
March.....	273,600	412,554	22,679	42,694
April.....	.....	68,000	.....	28,326
May.....	.....	90,100	.....	34,079
June.....	.....	453,467	.....	15,055
July.....	.....	165,769	.....	45,931
Total hushels.....	2,290,490	3,649,340	476,635	866,544

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago for the month ending April 12 has been as follows:

MAR.	NO. 2.*		NO. 1. NO.*		NO. 2		STR.		NO. 2		NO. N. W.	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
12.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
13.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
14.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
15.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
16.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
17.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
18.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
19.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
20.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
21.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
22.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
23.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
24.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
25.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
26.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
27.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
28.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
29.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
30.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
31.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
Apr. 1.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
2.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
3.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
4.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
5.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
6.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
7.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
8.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
9.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
10.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
11.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17
12.....	1.11	1.15	1.13	1.15	1.15	1.17	1.15	1.17	1.15	1.17	1.15	1.17

During the week ending March 17, Prime Contract Timothy Seed sold at \$2.95@3.05 per cental; Prime Contract Clover Seed at \$12.85@13.35; Hungarian at \$1.30@1.55; German Millet at \$1.25@1.75; Buckwheat at \$1.00@1.15 per 100 pounds.

During the week ending March 24, Prime Contract Timothy Seed sold at \$2.80@3.00 per cental; Prime Contract Clover Seed at \$13.35; Hungarian at \$1.30@1.55; German Millet at \$1.25@1.75; Buckwheat at \$1.00@1.15 per 100 pounds.

During the week ending March 31, Prime Contract Timothy Seed sold at \$2.85@2.90 per cental; Prime Contract Clover Seed at \$13.35@13.75; Hungarian at \$1.30@1.50; German Millet at \$1.25@1.75; buckwheat at \$1.00@1.15 per 100 pounds.

During the week ending April 7, Prime Contract Timothy Seed sold at \$2.90@2.95 per cental; Prime Contract Clover Seed at \$13.75@14.40; Hungarian at \$1.20@1.50; German Millet at \$1.25@1.75; buckwheat at \$1.10@1.15 per 100 pounds.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of March, 1905:

BALTIMORE—Reported by H. A. Wroth, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1905.	1904.	1905.	1904.
Wheat, bushels.....	80,260	99,534	.....	.....
Corn, bushels.....	1,606,495	1,957,788	1,609,621	1,776,807
Oats, bushels.....	170,836	160,112	618	20
Barley, bushels.....	.....	23,982	.....	.....
Rye, bushels.....	39,571	21,086	.....	.....
Timothy Seed, lbs.....	814	2,030	2,282	747
Clover Seed, lbs.....	12,026	20,325	1,573	.....
Hay, tons.....	5,533	5,255	1,328	1,898
Flour, bbls.....	163,258	302,154	104,713	139,951

CHICAGO—Reported by Geo. F. Stone, secretary of the Board of Trade.

Wheat, bushels.....	1,182,000	1,090,995	1,088,754	1,197,246
Corn, bushels.....	14,808,100	5,423,605	7,673,103	3,550,330
Oats, bushels.....	9,095,450	8,931,222	4,617,309	5,774,923
Barley, bushels.....	2,714,027	2,767,996	520,772	866,546
Rye, bushels.....	109,100	317,771	146,585	188,064
Timothy Seed, lbs.....	10,918,718	8,290,899	2,765,311	5,091,113
Clover Seed, lbs.....	275,046	1,262,445	728,982	1,304,850
Other Grass Seed, lbs.....	3,636,300	3,930,465	5,319,179	8,563,636
Flax Seed, bushels.....	273,160	272,459	8,102	67,807
Broom Corn, lbs.....	2,190,110	1,202,880	732,123	1,597,040
Hay, tons.....	29,753	21,306	1,398	1,368
Flour, bbls.....	836,002	1,340,685	697,362	1,037,173

CINCINNATI—Reported by C. B. Murray, superintendent of the Chamber of Commerce.

Wheat, bushels.....	112,496	192,390	66,680	170,166
Corn, bushels.....	797,346	798,196	363,614	787,576
Oats, bushels.....	460,781	558,849	345,093	203,219
Barley, bushels.....	132,215	129,027	7,199	1,088
Rye, bushels.....	74,426	49,696	39,608	27,955
Timothy Seed, bags.....	2,750	6,275	5,964	2,837
Clover Seed, bags.....	7,202	7,160	6,483	3,936
Other Grass Seed, bags.....	9,417	4,750	11,319	8,018
Flax Seed, bushels.....	.....	.....	.....	.....
Broom Corn, lbs.....	.....	.....	.....	.....
Hay, tons.....	12,574	8,324	6,425	6,622
Flour, bbls.....	127,963	194,703	79,105	140,882

CLEVELAND—Reported by F. A. Scott, secretary of the Chamber of Commerce.

Wheat, bushels.....	141,625	87,858	16,009	29,520
Corn, bushels.....	927,454	520,278	692,216	200,390
Oats, bushels.....	305,506	340,711	124,025	90,067
Barley, bushels.....	24,702	37,808	.....	1,571
Rye, bushels.....	.....	1,486	.....	1,054
Flaxseed, bushels.....	.....	.....	.....	.....
Hay, tons.....	4,631	8,616	737	491
Flour, tons.....	5,213	6,345	2,508	1,876

DETROIT—Reported by F. W. Waring, secretary of the Board of Trade.

Wheat, bushels.....	63,036	149,085	17,246	30,133
Corn, bushels.....	635,315	343,748	216,778	94,903
Oats, bushels.....	255,952	364,449	23,673	92,865
Barley, bushels.....	230,408	233,801	1,900	22,467
Rye, bushels.....	10,403	31,028	20,496	16,389
Flour, bbls.....	23,200	29,600	8,200	16,690

DULUTH—Reported by H. B. Moore, secretary of the Board of Trade.

Wheat, bushels.....	324,191	1,127,923	129,550	91,970
Corn, bushels.....		1,125		
Oats, bushels.....	917,342	436,435	38,758	127,452
Barley, bushels.....	27,101	171,996	23,016	110,732
Rye, bushels.....	2,404	53,066	1,179	5,905
Flax Seed, bushels.....	175,884	1,250,509	174,460	236,770
Floor. bbls.....	100,560	148,880	43,505	70,985

ELEVATOR AND GRAIN NEWS

ILLINOIS.

An elevator is being built at St. Anne, Ill.

The Alton Elevator Co. of Chicago has been dissolved.

E. D. Risser will build a new grain office at Paxton, Ill.

J. W. Meyers will build an elevator at Florence Station, Ill.

The Sparks Milling Co. will rebuild its burned elevator at Alton, Ill.

William W. Goff of Ashland, Ill., has bought the elevator at Lowder, Ill.

H. N. Jackson's new elevator at Bardolph, Ill., is completed and in operation.

J. E. Eckhart & Co. succeed J. F. Huxtable in the grain trade at Benson, Ill.

The Elgin, Joliet & Eastern Railway will build a new elevator at Waukegan, Ill.

The Shellabarger Elevator Co. of Decatur, Ill., will build an elevator at Osprey, Ill.

At Mahomet, Ill., \$6,700 has been subscribed toward the erection of a farmers' elevator.

A. H. Edwards is contemplating erecting a new elevator at Tolono, Ill., to replace his present house.

The Farmers' Grain and Coal Co. of Varna, Ill., has increased its capital stock from \$3,000 to \$7,000.

Kaiser Bros.' elevator at Parnell, Ill., has been purchased by Pletch & Sons of Iowa Falls, Iowa.

John O. Linder, proprietor of the grain elevator at Loxa, Ill., has bought a large elevator at Vermillion, Ill.

A branch of the Farmers' National Alliance is being organized at Kilbourne, Ill., to build a farmers' elevator.

The work of rebuilding and remodeling the Atlas Grain Co.'s elevator at Savanna, Ill., will shortly be commenced.

The Younglove Construction Co. of Mason City, Iowa, has just completed the elevator at Bongard, Ill., for John Lowrey of Fairland.

The elevator now under construction at Woodhull, Ill., for F. L. Hough, is being built by the Younglove Construction Co. of Mason City, Iowa.

O. M. Kelley has sold his elevator at Dana, Ill., to Ensign & Wheeler of Long Point, Ill. The consideration was \$8,000 and possession was given April 3.

The Wedron Grain Co. (co-operative), capitalized at \$6,600, has been chartered at Wedron, Ill. Wilson Conard, Edward Zeller and John L. Eustis are the incorporators.

An addition will be built, and other improvements made to the elevator at Buckingham, Ill., which was recently purchased by W. M. Christie from Fleming & Brown.

J. I. Everson has sold his elevator at Kenney, Ill., to John Henderson and Andrew Humphrey. The consideration was \$10,000. The new owners have taken possession.

F. C. Edwards of Philo, Ill., has purchased the one-half interest in the elevator at Deers, Ill., owned by R. H. Steele of Urbana, Ill., and is now sole owner of the property.

The Neola Elevator Co. has torn down the old grain warehouse at Thomson, Ill., which was erected over thirty-five years ago, and is building a lumber shed on the site.

The Farmers' Elevator Co. of Colfax, Ill., has bought the two elevators at that place owned by the Rogers Grain Co. The consideration was \$13,000, possession being given April 1.

H. A. Hillmer & Co. of Freeport, Ill., have purchased C. J. Reints' grain and coal business at German Valley, Ill. Mr. Reints will continue in the lumber and building material business.

The recently incorporated Sibley Farmers' Elevator Co. of Sibley, Ill., has elected the following officers: President, George Stockdale; secretary, M. Althouse, and treasurer, Albert Kuntz.

The White & Rumsey Grain Co. of Chicago has broken ground at Kankakee, Ill., for a 150,000-bushel transfer elevator. It will be modern throughout and equipped with four 84,000-pound Fairbanks Hopper Scales with patent check beams, six Monitor Cleaners, a 350-horsepower Twin City Corliss Engine and two Gem City Boilers. Provision will be made for the erection of a steel or tile storage annex later. For fire protection the elevator will have a Fire Underwriters Pump of

750 gallons' capacity per minute, supplied from a 50,000-gallon cistern. The house will have a dump for receiving grain from wagons. The location of the new elevator is in the 3-1 yards in West Kankakee.

Work on the new elevator which is being built at Tomlinson, Ill., by Murray & New is being pushed as rapidly as possible. The foundation is of concrete and the superstructure will be built of wood.

The Elgin Flour and Fuel Co. of Elgin, Ill., has been incorporated with a capital of \$5,000 to deal in flour, feed, fuel and building material. Charles D. and M. J. McArthur and T. S. Huntley are the incorporators.

The Millington Grain and Supply Co. of Millington, Ill., has been licensed to incorporate with a capital of \$15,000. The concern is a farmers' organization and the incorporators are E. S. Holland, L. W. Weeks and Charles E. Sleezer.

Henry White, the Warsaw, Ill., grain and live stock buyer who was recently compelled to suspend business temporarily on account of financial difficulties, will, it is stated, pay his creditors 100 cents on the dollar and soon resume business.

C. H. Rumley has sold his elevator at Herscher, Ill., to J. W. Radford & Co. of Chicago. The reported consideration is \$14,000. Mr. Rumley owned the house for about a year, buying it for \$7,500. John Karcher will have charge for the new owners.

The general offices of the Zorn Grain Co., which have been located in Bloomington, Ill., for the past five years, will be moved to Peoria on May 1. The main reason for the change is said to be the desire of the company to have its offices more in the center of its territory.

THE DAKOTAS.

Walton & Davis will erect an elevator at Dickinson, N. D., this spring.

C. W. Thompson is building an addition to his elevator at Parker, S. D.

Charles Gray and John Faris will build an elevator in Flandreau, S. D.

The Gackle Grain and Implement Co. has opened its elevator at Underwood, N. D.

Fred Wegler has opened a feed store at Rugby, N. D., and built two grain warehouses.

The Eagle Roller Mill Co. of New Ulm, Minn., will build an elevator at Frankfort, S. D.

Farmers around Devils Lake, N. D., are organizing a company to build a mill and an elevator.

The Northern Elevator Co. will rebuild its elevator at Rolla, N. D., which was burned on February 24.

The Powers Elevator Co. of Minneapolis will build a number of new elevators in North Dakota this year.

A company will be formed at Starkweather, N. D., to build a farmers' elevator. It will be capitalized at \$20,000.

C. W. Bremer will build a 20,000-bushel elevator at Palmer, S. D., this summer. He will install a feed mill outfit.

The Younglove Construction Co. recently installed an improved Hall Grain Distributor in the elevator at Fairfax, S. D.

The Minneapolis & Northern Elevator Co. will erect a new elevator at Milton, N. D., to replace the one burned on February 8.

The newly organized Farmers' Shipping Association of Elkton, S. D., has purchased a portable elevator and commenced business.

It is stated that Gartland & Wilson of Esmond, S. D., have secured a flat house at Cavour, S. D., and will convert it into an elevator.

The recently chartered Medina Milling and Elevator Co. of Medina, N. D., will build a 40,000-bushel elevator and a 100-barrel mill.

At Michigan City, N. D., a charter has been granted to the recently organized Michigan City Farmers' Elevator Co. The capital stock is \$50,000.

The Brinsmade Farmers' Elevator Co., capitalized at \$15,000, has been organized to build a co-operative elevator in Brinsmade, N. D., this summer.

The organization of the Co-operative Elevator Co. of Fingal, N. D., has been completed and officers elected. The Soo road has been asked to grant a site.

The project for organizing a farmers' company at Hazel, S. D., to build and operate a co-operative elevator, has been abandoned, for the present, at least.

The Litchville Farmers' Elevator Co. has been chartered at Litchville, N. D., with a capital stock of \$50,000 and the following officers: President, H. J. Hanson; secretary, Samuel J. Sarsten. An elevator with a capacity of about 50,000 bushels will

be built. The company has the one-cent penalty clause in its by-laws.

The Western Elevator Co. has broken ground for the erection of a new elevator at Henry, S. D. It is expected to be completed about the middle of May.

Farmers around Lyons, S. D., have organized a cooperative company to be known as the Farmers' Elevator Company of Lyons and will build an elevator.

It is reported that De Laney Bros. of Williston, N. D., contemplate the erection of a number of grain elevators along the Great Northern Railway west of Minot, N. D.

The Farmers' Elevator Co. of Wyndmere, N. D., has been incorporated with a capital of \$50,000. F. J. Kuchera has been elected president and Neil Campbell, secretary.

The Wimbleton Farmers' Elevator Co. of Wimbleton, N. D., has been incorporated with a capital of \$50,000. An elevator will be built and a co-operative store may also be established.

The Farmers' Elevator Co. of Underwood, N. D., capital stock \$20,000, has been licensed to incorporate. A. H. Yeager and H. L. Currier are interested parties. An elevator will be built.

The Farmers' Mill and Elevator Co. of Great Bend, N. D., is to build an elevator. The concern is said to have been negotiating for the purchase of the Great Western Elevator at that place.

John Kippen of Glasston, N. D., has purchased an interest in the Hamilton Grain and Implement Co. of Hamilton, N. D., and removed to that place. He will have the management of the business.

The Courtenay Farmers' Elevator Co., Courtenay, N. D., has been licensed to incorporate. It is authorized to build and operate a grain elevator, electric light plant, etc., and is capitalized at \$50,000.

The Clauson Milling and Elevator Co. of Kenmare, N. D., has filed articles of incorporation with a capital of \$50,000. The incorporators are: R. Clauson, George W. Wooley and Allen E. Hartman.

The Farmers' Elevator and Mercantile Co. of Valley City, N. D., is trying to secure a site from the railway company for the proposed 50,000-bushel elevator. Seymour Granger is president of the organization.

The incorporation of the Enderlin Farmers' Elevator Co. of Enderlin, N. D., is reported. It is capitalized at \$50,000 and will buy or build an elevator. The officers are: President, Wallace Galbreath; secretary, E. O. Fausett.

The Younglove Construction Co. of Mason City, Iowa, is completing an elevator at Yale, S. D., for Thos. Gartland of Parker, S. D., and has started work on a 20,000-bushel house at Fairfax, that state, for Torrence Bros. of Tabor.

The Emerado Elevator Co., a new farmers' organization at Emerado, N. D., will endeavor to lease or buy one of the elevators at that place. Failing to do this an elevator with a capacity of 40,000 to 50,000 bushels will be built.

It is announced that the Hoit Grain Co. of Minneapolis has closed a deal with De Laney Bros. of Williston, N. D., for the purchase of their line of elevators on the Great Northern. De Laney Bros. retain control of their flat houses.

Jones & Metcalf, grain dealers of Madison, S. D., have asked the state board of railway commissioners to aid them in securing an elevator site on the Milwaukee right-of-way at Ramona, S. D. The firm operates a line of elevators on the Milwaukee road.

Two elevators will be built at Washburn, N. D., the contracts having been let. The Benton Transportation Co. will erect one on the bank of the Missouri River and use a marine leg to load boats. The other will be erected by the Washburn Grain and Feed Co.

Articles of incorporation have been filed by the Farmers' Elevator Co. of Chaffee and Embden, Cass County, N. D. It has a capital stock of \$15,000 and proposes to build a 40,000-bushel elevator at Chaffee, N. D., and a 30,000-bushel house at Embden, that state. John Martin is president and John Watts secretary.

The farmers living in the vicinity of Leal, N. D., have organized a co-operative elevator company and propose to erect a 50,000-bushel elevator during the coming summer. J. W. Widdifield is president and J. W. Hilborn, secretary. They have also organized the Leal Mercantile Co. and will put in a general store.

The Truax & Betts Elevator Co. of Mitchell, S. D., will be dissolved May 1. The dissolution takes place by mutual agreement and the business will be divided equally, A. A. Truax taking all the elevators on the line of the Chicago, St. Paul Minneapolis & Omaha road and A. H. Betts those on the line of the Chicago, Milwaukee & St. Paul road. The company commenced business about five years ago as a partnership. The business was

gradually increased until, at the present time, the concern owns twenty-four warehouses and elevators. Of these, nineteen are in South Dakota, four in Iowa and one in Minnesota. Both Mr. Truax and Mr. Betts will continue to reside in Mitchell and manage their respective elevators from that point. Mr. Truax will retain the present offices and Mr. Betts will open offices elsewhere in that city.

SOUTHERN AND SOUTHWESTERN.

W. C. Roberts will build an elevator at El Reno, Okla.

Denton, Texas, grain and mill men are building an elevator at Keller, Texas.

C. C. Glass & Bro. are succeeded in the grain business at Camp Nelson, Ky., by J. W. Glass & Son.

The Standard Milling Co. of Houston, Texas, will build a 75,000-bushel steel storage tank for grain.

E. B. Doggett and J. L. Moore of McKinney, Texas, are negotiating for an elevator site in Fort Worth, Texas.

The Dazey-Moore Grain Co. of Fort Worth, Texas, is planning the erection of an elevator in North Fort Worth.

Williams & Worsham is the style of the firm succeeding Williams & Anderson in the hay and grain business in Nashville, Tenn.

The Yukon Mill and Grain Co. of Yukon, Okla., is building a 100,000-bushel steel tank elevator in that city. It is to be completed by July 15.

William Prewitt, manager of the Southern Star Roller Mills at Perryville, Ky., is building a 25,000-bushel cribbed elevator. It will be completed about June 1.

The Callahan Sons Co. is rebuilding its hay, grain and feed warehouse at Louisville, Ky., which was burned on January 26, and it will shortly be ready for occupancy.

The J. T. Stark Grain Co. of Plano, Texas, will build a 100,000-bushel elevator at that place. The company also owns a plant at Texarkana, Ark., and will build a 75,000-bushel elevator there.

The Pawnee Mill and Elevator Co. of Pawnee, Okla., has been chartered, with a capital of \$25,000. W. E. and M. L. Gorton of Pawnee and R. M. and M. G. Carr of Guthrie are the incorporators.

The Home Grain Co., which owns elevators in Minnesota, the Dakotas, Iowa, Nebraska and Kansas, will build a large elevator at El Reno, Okla. The Rock Island will furnish trackage facilities.

The Linzee Elevator Co., which has elevators at a number of points in that territory, will build an elevator and office at Frederick, Okla. Work will be commenced about May 1. W. C. Brady is an interested party.

The Newport Flouring Mill Co. of Newport, Ky., has let the contract for extensive improvements at its plant. A large grain elevator, fronting the mill property and adjoining the L. & N. and C. & O. tracks, will be built.

The Sanger Grain Elevator Co., whose 40,000-bushel elevator in North Fort Worth, Texas, was burned on February 12, is now considering plans for rebuilding. Steel instead of wood will be the material used for bins in the new house.

R. A. Carr, proprietor of the Magnolia Flour Mills at Maysville, Ky., has let the contract for the erection of a new steel elevator to replace the present wooden structure at his plant. The new house will have a storage capacity of 30,000 bushels.

T. J. Wallace, formerly of Mexia, Texas, has purchased T. P. Turner's grain warehouse in Cleburne, Texas, and engaged in the grain and fuel business. He has leased a tract of ground adjoining the warehouse and will establish a coal and wood yard.

A No. 6 Hess Drier has been installed in the Mobile & Ohio Elevator at Mobile, Ala., recently leased by the Williams & Fitzhugh Co. of Memphis, Tenn., and Vicksburg, Miss. The drier will be used for preparing corn for export and has a capacity of between 10,000 and 12,000 bushels a day.

A building permit has been granted to William Rich of Nashville, Tenn., for the erection of a two-story brick building at the corner of Houston and Brown streets, that city. The upper floor will be occupied by Logan & Co., grain dealers, in addition to the large warehouse already occupied by them nearby. The building will cost \$10,000.

The banking interests of Fort Worth, Texas, are considering the matter of erecting a 400,000-bushel public grain elevator in that city. The plan suggested is to build it near the Rosenbaum Elevator and secure power for operating purposes from that plant. Steel storage tanks are talked of for the purpose. Those interested in the project say that the establishment of such an elevator would be of material benefit to the Fort Worth banks. Noah Harding, cashier of the Fort Worth National Bank,

and Ben O. Smith, cashier of the Farmers' and Mechanics' National Bank, are active in the proposition.

The National Rice Milling Co. of New Orleans, La., has contracted with James Stewart & Co. for a 250,000-bushel rice elevator at that place. The elevator will have the distinction that it is the only rice elevator built in this country to handle rice in bulk. It will be equipped with 10 legs, rice reels, conveyors for distributing into the different bins and conveyors for receiving rice in bags from cars. The building will be of frame construction, iron clad.

The new elevator of the Liberty Mills at Nashville, Tenn., which replaces the one burned on February 8, will be a cribbed structure of the same material as the old one. It was at first planned to build the new house of concrete and steel, but the decision was finally made to build it of wood. The plans have been prepared and construction work will shortly be commenced. The new elevator will have about double the capacity of the burned one.

It is announced that the Oklahoma City Mill and Elevator Co. of Oklahoma City, Okla., will enlarge its plant and make other improvements. A mill building, 48x100 feet, with additional engine rooms, a two-story warehouse, 100x100 feet, a 75,000-bushel elevator and an office building will be built. The company proposes to increase the capacity of its mill to 1,000 barrels of flour, 300 barrels of cornmeal and 15 carloads of corn chop a day. It is also stated that two large steel storage tanks for grain will be erected later.

J. B. McLemore, who was formerly connected with the Capitol Grain Co. of Nashville, Tenn., has purchased five acres of ground in that city and will erect a modern grain elevator and storage plant. The proposed new building will be of corrugated iron construction and will be located on the line of the Nashville Terminal Co. in West Nashville. The plant will cost about \$50,000 and will be modern in every respect. Mr. McLemore is a former resident of Columbia, Tenn., and capitalists of that city will be associated with him in the Nashville enterprise.

The Rock Island-Frisco System is contemplating the erection of terminal facilities at Galveston, Texas. N. H. Lassiter, general attorney for the Rock Island in Texas, is authority for the statement that, in the event the legislature approves a ruling of the State Railroad Commission just made with reference to the management of the Rock Island-Frisco property in that state, that the improvements will begin within a year, and that between \$1,000,000 and \$2,000,000 will be spent in improvements in Galveston. Among the many improvements contemplated is one or more grain elevators.

IOWA.

The Thorpe Elevator Co.'s new house at Struble, Iowa, is about completed.

The Iowa and Minnesota Cereal Co. has closed its elevator at Leland, Iowa.

Moler, Clark & Co. succeed Moler & Clark in the grain business at Montezuma, Iowa.

J. A. Blair has succeeded the firm of Wright & Blair in the grain trade at Glenwood, Iowa.

Ringle Bros. are reported to have traded their elevator at Marne, Iowa, for 120 acres of land.

Extensive improvements will be made to the Loomis-Johnson-Lee Co.'s elevator at Ida Grove, Iowa.

The firm of G. H. Elliott & Son is succeeded in the grain business at Whiting, Iowa, by Fred Robinson.

W. H. Hurlbut has sold his grain and lumber business at Danville, Iowa, to W. A. Hanna and John Mathews.

B. P. Held has bought E. D. Vorhes' grain elevators at Ackley and Macy, Iowa. Possession will be given about May 1.

The elevator at Salix, Iowa, owned by the Trans-Mississippi Grain Co., is being equipped with an improved Hall Distributor.

The Farmers' Co-operative Elevator Co. is the style of a new organization now in process of formation at Dayton, Iowa.

J. H. Hamilton & Co. are tearing down their elevator at Mondamin, Iowa, and will erect a more modern one on the same site.

A company composed of local farmers has been formed at Kingsley, Iowa, for the purpose of establishing and operating a grain elevator.

W. H. Fluke has sold his elevator and coal yard at Greenfield, Iowa, to Sumner White of Knox City, Mo., who will take possession about April 25.

William McGargill of Imogene, Iowa, has bought the elevators and grain business of J. L. Gwynn & Co. at Imogene and Solomon, and taken possession. Mr. Gwynn had been in the grain trade

at Imogene since 1879. He will now devote his time to his bank and other interests at that place.

A farmers' elevator company is being organized at Moorland, Iowa, to build a co-operative elevator. Part of the necessary stock has been subscribed.

C. B. Lamkin of Inwood, Iowa, has bought the Wheeler Grain and Coal Co.'s elevators at Laurens and Ware, Iowa. Possession will be given July 15.

A farmers' organization has been formed at Alford, Iowa, to build a co-operative elevator. Lon Hamann is president and Otto Reimers is secretary.

M. S. Dewey has purchased a one-half interest in J. E. Knudson & Co.'s grain and fuel business at Milford, Iowa. The firm name is now Knudson & Dewey.

F. S. Miller is building a 15,000-bushel elevator at Shellsburg, Iowa, having placed the contract with the Younglove Construction Co. of Mason City, Iowa.

The Gilmore Grain and Elevator Co. of Gilmore City, Iowa, has been chartered with a capital of \$10,000. The officers are: S. H. Groves, president; E. G. Fargo, secretary.

The Younglove Construction Co. of Mason City, Iowa, has recently closed a contract for the erection of a 25,000-bushel elevator at Burt, Iowa, for the Burt Farmers' Exchange.

The Younglove Construction Co. of Mason City, Iowa, furnished the plans for the 12,000-bushel elevator built at Belfour, Iowa, for the Buffington Lumber Co. of Glenwood, Iowa.

At the annual meeting of the Dougherty Co-operative Farmers' Association of Dougherty, Iowa, the old officers were re-elected. Thomas McManus is president and Eugene Shaw, secretary.

A branch of the Iowa State Farmers' Co-operative Elevator Association has been organized at Dows, Iowa. About 250 shares of \$25 each have been subscribed. There are two elevators at Dows and the farmers expect to buy one of them.

The Keystone Mercantile Co. has bought Leonard Kimm's lumber, grain and coal business at Keystone, Iowa. The consideration is \$6,500, possession to be given May 1. The company is a new organization, capitalized at \$15,000. Henry J. Meyer is president and Wm. Krombach, secretary.

The Barnett & Record Co. of Minneapolis has been awarded a contract for the erection of a 350,000-bushel elevator for the American Cereal Co. at Cedar Rapids, Iowa, and to do other work toward restoring the recently burned plant. The new house will be of wood and embraces a working elevator. There will be a cleaning house independent of the remainder of the plant.

The L. J. Button Elevator Co., capitalized at \$100,000, has been incorporated at Sheldon, Iowa. The officers are: D. C. Peck, president; Fred E. Frisbee, treasurer, and L. J. Button, secretary and general manager. Mr. Peck is a banker of Clinton, Minn., and Messrs. Frisbee and Button are residents of Sheldon. The company will begin operations with seven elevators, located at the following Iowa points: Boyden, Inwood, Sheldon, Evander and Ritter. The general offices will be at Sheldon. Other elevators in tributary territory will be purchased.

The Bosch-Ryan Grain Co. will rebuild its elevator and malting plant at Cedar Rapids, Iowa, which were burned on the night of February 7-8. The company has asked the city council to vacate a portion of two streets to permit the erection of a larger plant than the old one. It is said that the request will likely be complied with. The new elevator will be built of steel and concrete and will be as nearly fireproof as possible. It will have a capacity of 400,000 bushels. The malt house will be of fireproof construction, 30x140 feet in size and eight stories high. It will have a daily capacity of 2,000 bushels of malt, but the plant will be so arranged that this can be increased to 4,000 bushels if desired. The plans are being prepared and the contract will shortly be let. It is said that the company proposes to move its office force from Davenport to Cedar Rapids when the new plant is completed.

It is announced that the Trans-Mississippi Grain Co. will probably rebuild the burned Union Elevator in Council Bluffs, Iowa, although Omaha business interests were anxious to have it erected on that side of the river. The burned elevator was owned by the Union Pacific Railway and operated by the Trans-Mississippi Grain Co. under lease. It is said that while the railroad company does not desire to erect the new house itself it is willing to furnish a site for that purpose. A Council Bluffs paper states that the site proposed is somewhat to the south and east of the structure that was burned. This will be for the purpose of giving more room for trackage. All the tracks used formerly were curved spurs of short length. The date for commencement of work has not been set, but when construction does begin it will be pushed as vigor-

ously as possible, with the idea of getting the building done in time for this year's grain crop. The new elevator is to have a capacity of about 650,000 bushels. The insurance on the burned property is reported to have been adjusted at \$240,000, less the amount realized from the sale of the damaged grain. Most of the damaged wheat, oats, rye and barley was sold for feed, but the corn was purchased by a syrup and preserving company. The grain sold for feed brought one dollar a load.

MISSOURI, KANSAS AND NEBRASKA.

J. L. Davis will build a grain elevator at Studley, Kan.

The contract for a farmers' elevator at Halstead, Kan., has been let.

It is announced that E. D. Gould will build an elevator at Greeley, Neb.

The machinery is now being installed in the new elevator at Alexandria, Mo.

Stover Bros. & Lawrence have sold their grain business at Shady Bend, Kan.

The farmers' elevator at Straussville, Neb., is now completed and in operation.

Burkholder & Co. have succeeded Ehrlich & Co. in the grain business at Lehigh, Kan.

Building of the farmers' elevator projected at Ada, Kan., is reported at a standstill.

F. L. Goodnight has succeeded H. H. Butler in the grain business at Englewood, Kan.

J. W. Barker has bought the stucco mill at Burns, Kan., and will convert it into an elevator.

The Farmers' Grain Co. of Belpre, Kan., has been incorporated with a capital of \$10,000.

The Golden Belt Elevator Co. of Ellis, Kan., has been incorporated with a capital of \$10,000.

The Loomis Grain and Milling Co. has completed its new elevator and flour house at Loomis, Neb.

The Bruning Roller Mill and Elevator Co. of Bruning, Neb., is building a 20,000-bushel elevator.

The Prosser Grain Co. of Prosser, Neb., has filed articles of incorporation, with a capital stock of \$10,000.

The Trans-Mississippi Grain Co. is installing an improved Hall Distributor in its elevator at Octavia, Neb.

The Terwillinger & Dwight Elevator at Dixon, Neb., is being razed and a new one will be erected on the site.

Baker & Crowell's new elevator at Stockton, Kan., is completed. There are now three elevators at that point.

The N. Sauer Milling Co. of Cherryvale, Kan., is building a new 65,000-bushel elevator and a large flour warehouse.

J. L. Baker's grain and lumber business at Beemer, Neb., has been purchased by W. T. Fried of Fremont, Neb.

The Jones Grain Co. has been making some improvements to its elevator at Murray, Neb. Hopper scales have been put in.

The Walnut Creek Milling Co. of Great Bend, Kan., will erect a 75,000-bushel steel storage tank to increase its storage facilities.

It is said that \$9,000 of the capital stock of the Farmers' Elevator Co. of Larned, Kan., has been subscribed. S. K. Lovett is secretary.

The old Wabash Elevator at Maryville, Mo., which was built twenty years ago, has been torn down and the lumber used for other purposes.

A large elevator is now in course of construction at Dixon, Neb. There is also talk of a farmers' organization being formed to build one there.

Frank Kroboth has purchased M. L. Meek's interest in the grain and coal business at Black Wolf, Kan., and the firm name is now Kroboth & Dolecek.

A Mr. Chikowsky of Ellsworth, Kan., has purchased E. Ballard's Dodge City Roller Mills at Dodge City, Kan., and will erect a large elevator adjoining.

The Farmers' Elevator Co. of Burrton, Kan., has let the contract for the erection of a 16,000-bushel elevator on the old Hoover & Bonham mill site at that place.

The John Collingwood Land Co. will build a 40,000-bushel grain elevator at Plains, Kan. The J. B. Hupp Co. also contemplates erecting an elevator at that place.

The Stockton Elevator and Shipping Association will enlarge its grain elevator at Stockton, Kan. An addition 12x28 feet will be built and the building made 12 feet higher.

Herman Probst will build a cleaning and storage elevator at Arkansas City, Kan., if he receives the proper encouragement from the business men of the city. He has asked the local commercial club for a free site and aid in securing cheap gas for

power purposes. The proposed elevator will have a storage capacity of 40,000 bushels and a handling capacity of twenty cars a day. It will cost about \$20,000.

James Broughton of McPherson, Kan., has bought F. W. Hawthorne's grain business at Conway, Kan., and removed to that place. Mr. Hawthorne will shortly remove to California.

The Farmers' Grain Co. at Miller and Amherst, Neb., has built a flat house and put in scales at Watertown, Neb. The company has also opened another branch at Pleasanton, Neb.

The Bartling Elevator Co. of Nebraska City, Neb., has purchased George Coryell's elevator at Talmadge, Neb., and taken possession. Mr. Coryell will continue to reside in Talmadge.

The Hebron Grain Co. of Hebron, Neb., has purchased William Van Buren & Son's elevator at Gilead, Neb., and taken possession. Robert Sisson will have charge for the new owners.

The Cowgill & Hill Milling Co. of Carthage, Mo., has leased the J. P. Leiss Grain Co.'s elevator at Jasper, Mo., and will operate it after June 1. J. P. Leiss will be in charge as local manager.

Blythe & Patton are rebuilding their elevator at Blue Springs, Neb., which was burned recently. The new house will have a capacity of 13,000 bushels and will be equipped with modern machinery.

The Farmers' Elevator Co. of Gretna, Neb., has changed its corporate name to that of Gretna Elevator Co. The company has been reorganized and new directors have been elected. The capital stock is \$15,000.

The lease of the elevator at Ada, Kan., between J. T. White and R. C. Jackman, has been terminated by mutual consent and the grain business at that point will hereafter be conducted by J. T. White & Son.

A building permit has been issued to the Independent Elevator Co. for the erection of its new 1,000,000-bushel elevator in Omaha, Neb. It will cost \$145,000 and will consist of eight steel storage tanks and a metal-clad working house.

It is announced that although the attempt to organize a stock company to build an elevator in Tebbetts, Mo., failed, an elevator will be erected by E. E. Marlaw and a Mr. Gillett of McKittrick, Mo., in connection with St. Louis parties.

On account of the objection of certain business men of Gower, Mo., E. L. Walker has decided not to erect the proposed grain elevator at that place. The parties in question objected to the location of the elevator near their places of business.

The Kansas Grain Co. has had plans prepared for a new elevator, to be erected near its present Rock Island Elevator at Hutchinson, Kan. The new building will be 70 feet high. The growth of the business has made more storage room necessary.

The Andrews-McClelland Grain Co. has been incorporated at St. Louis, Mo., with a capital stock of \$10,000 to deal in grain, feed, etc. The stockholders are: W. O. Andrews, 65 shares; Frank M. McClelland, 34 shares, and John E. Timberlake, one share.

E. B. Russell has been granted a building permit for the erection of a combination grain elevator and hay storage warehouse on West Eighth Street in Kansas City, Mo. The building will be 100x130 feet in dimensions, of brick construction, and will cost \$20,000.

The Missouri & Kansas Grain Co. of Neosho, Mo., has been reorganized and the capital stock increased to \$20,000. The following directors have been chosen: A. L. Brannock, C. E. Davis, E. Haas, J. W. Lamson, B. Hatler, J. M. Ritchey and J. T. Sturgis.

The C., M. & St. P. Railway Co.'s elevator at Kansas City, Mo., is undergoing changes and by about May 1 its capacity will be increased by 70,000 bushels. The present capacity of the elevator is 1,500,000 bushels. The increased capacity is being gained by a rearrangement of the interior of the elevator.

E. D. Lacey has sold his interest in the grain, feed and coal business of Lacey & Lacey at Moran, Kan., to his brother, W. H. Lacey, and retired from the firm. Mr. Lacey's reason for retiring from the business is that he could not stand the confinement which attention to it demanded. He will now devote his time to his farm.

The Red Star Mill and Elevator Co. has been incorporated at Wichita, Kan., with a capital of \$50,000, and will build a 75,000-bushel elevator and a 400-barrel flour mill. The officers are: J. E. Howard, president and general manager; W. E. Clark, vice-president, and A. R. Clark, secretary and treasurer. Mr. Howard is head of the Union Mills of Wichita, but he will devote his entire attention to the new company. His son, C. R. Howard, will manage the Union Mills. The elevator will be built especially for the fast handling of grain. Its capacity will be 75,000 bushels, but the

size will be no indication of the amount of business that can be done through it. It will be so arranged that fifteen to twenty cars of grain can be handled in a day.

It is now expected that the South Park Elevator Co.'s new 125,000-bushel elevator at St. Joseph, Mo., will be completed and ready for operation early in May. Work on the building is being pushed as rapidly as possible. It is being erected by the Younglove & Boggess Co. and will be fifty feet square and about 100 feet in height. A sidetrack has been built to the elevator by the Burlington.

The contract for the superstructure of the 1,500,000-bushel elevator, which the Atchison, Topeka & Santa Fe Railway Co. is building at Argentine, near Kansas City, Kan., has been let. The foundation of the building is of stone and concrete, filled in with steel bars for strength. The foundation is of extraordinarily large size. The building will be built of brick and the immense receiving and holding or storage spaces will be lined with steel. The elevator will be completed and ready for operation in time to handle this year's grain crop.

The interests of D. R. Hopkins, who owned two elevators and a lumber yard at Kramer, Neb., and an elevator at Wilber, Neb., and the Goodell Grain and Coal Co., which had an elevator and coal yard at Crete, Neb., have been consolidated. A new corporation, with a capital stock of \$50,000, fully paid up, has been formed, with D. R. Hopkins as president and C. B. Goodell, secretary and treasurer. The other members of the company are Charles B. Anderson and George H. Hastings. The new company will be known as the Hopkins-Goodell Co.

The large grain elevator which is now being built in Armourdale (Kansas City), Kan., on the Chicago, Rock Island & Pacific Railroad by the MacDonald Engineering Co. of Chicago, will be completed by about July 15. At that time it will have been ten months in construction. It will be operated by the Terminal Elevator Co., the Kansas City end of the J. Rosenbaum Grain Co. The elevator will be the only one of its kind south and west of Chicago and will cost \$750,000. It will be equipped with the latest devices for handling grain and will have a storage capacity of 650,000 bushels. There will be 44 steel bins, 75 feet high, so bolted together as to form one large structure 114 feet long and 85 feet wide. The bins will be 16 feet in diameter. These bins will be inclosed by a steel building, all resting on a concrete foundation extending above the high water mark of 1903. The elevator will not only be absolutely fireproof, but waterproof as well. The house is being constructed of steel and concrete without a single stick of wood even for window or sash frames. The window frames are of steel and the glass is wired so there is not enough wood about the whole structure to make a toothpick. The floors are of concrete. On top of the bins will be a cupola 80 feet high. The structure will be 175 feet high. P. J. Shaughnessy, superintendent of construction, and J. J. Shirley, superintendent of shops, are directing the work. E. M. Jolley will be the manager of the elevator.

WESTERN.

The Farmers' Grain and Supply Co. will build a warehouse at Coulee City, Wash.

The Pueblo Flour Mill and Elevator Co. of Pueblo, Colo., is reported discontinued.

Kerr, Gifford & Co. of Portland, Ore., will build wheat warehouses at Connell and Eltopia, Wash.

James Savage has succeeded John Barry in the hay, grain and feed business at Meyers Falls, Wash.

The Wise Elevator Co. of Erie, Colo., has installed an outfit for the manufacture of alfalfa meal.

The Eugene Mill and Elevator Co. is making some improvements to its grain warehouses at Eugene, Ore., and installing some new machinery.

Ranchers in the vicinity of Troy and Kendrick, Idaho, are reported to have organized a co-operative association, to build grain warehouses at both the above points.

The Farmers' Warehouse Co. has been incorporated at Milton, Ore., and will erect a grain warehouse. H. L. Frazier, C. E. Demaris and H. M. Cockburn are the incorporators.

Articles of incorporation have been filed by the Imperial Grain and Milling Co. of Imperial, San Diego County, Cal. The capital stock is \$50,000, of which, it is stated, \$40,000 has been subscribed. The purpose of the new organization is to build elevators and mills in the Imperial Valley.

The Arlington Commission Co. is erecting a building at Arlington, Wash., and will handle grain, hay, flour and feed. It is said that cold storage facilities will also be installed. J. B. Holbrook and J. H. Gould, proprietors of the new concern, also conduct the Skagit Commission Co.

at Sedro Woolley, Wash., dealing in hay, grain and feed.

The Corbin-Black Lumber and Grain Co. has been incorporated at Wellington, Colo., with a capital stock of \$30,000. Frank Corbin, Charles A. Black and Charles J. Corbett are the incorporators.

OHIO, INDIANA AND MICHIGAN.

A new grain elevator will be erected at Uniontown, Ind.

Edward Taylor will build an addition to his elevator at Montmorenci, Ind.

Murphy & Spence have bought Ruff & Huston's elevator at Rushville, Ohio.

Stone & Bergon will build an addition to their elevator at St. Johns, Mich.

William M. Bryan has sold his grain elevator at Argos, Ind., to Robert Kuhn.

John Mooney has sold his elevator at Whittemore, Mich., to George Hunt.

J. C. Spahr has sold his elevator at Waynesville, Ohio, and will remove to Missouri.

Henry Jay of Waynesville, Ohio, has bought the Corwin Grain Co.'s elevator at Corwin, Ohio.

F. B. Mobbitt of Cicero, Ind., will erect a grain elevator at Arcadia, Ind., on the old mill site.

It is reported that A. Lanehart will sell his elevator at Butler, Ohio. He has already disposed of his residence.

Ringlein Bros. are now operating the grain elevator at West Leipsic, Ohio, in connection with the mill in Leipsic.

The elevator of the Winchester Milling Co. at Canal Winchester, Ohio, has been equipped with an improved Hall Distributor.

George Wagoner has completed his new elevator in East Toledo, Ohio, and has moved his family from Stony Ridge to that place.

Alfred Christian has purchased and is operating the Vandalia elevators at Columbia City, Ind., formerly managed by S. B. Lechrone.

The Chesaning Grain Co. of Chesaning, Mich., has filed articles of association under the same style. The capital stock is \$20,000.

Dr. Ernest Kohn has sold his elevator and grain business at Cavette, Ohio, to the McMillen Grain Co., who formerly owned the property.

F. T. Sawyer & Co. have sold their grain elevator on the Ohio Central Railway at Hatton, Ohio, to R. C. Dewey & Co. of Hoytville, Ohio.

An effort is being made at Crosswell, Mich., to form a stock company of farmers to purchase and operate the grain elevator and hay sheds owned by S. D. Kinsey.

S. J. Haines & Co. are building a new elevator, 70x125 feet in size, at Petersburg, Ind. It will be of brick construction, four stories high, and will cost about \$15,000.

W. F. Johnston has purchased an elevator at Carey, Ohio, and will remove from Larue to that place. His son, Hart Johnston, will have charge of the elevator at Larue, Ohio.

The Shadeland Grain Co. has been incorporated at La Fayette, Ind., with a capital of \$5,000. Matthews Schnaible, John Sattler and John F. Schnaible are the directors.

The Union Grain and Hay Co. of Cincinnati, Ohio, is tearing down the old buildings on the property recently purchased in that city to make room for the erection of its new elevator.

The safe in the office of Jenkins & Stewart's elevator at Sedalia, Ind., was blown open by burglars on the night of March 28, the thief getting \$75 and some valuable papers.

Burglars cracked the safe in the grain elevator at Elida, Ohio, owned by State Senator S. D. Crites, on the morning of March 17. They were frightened away before they secured anything of value.

Hollowell Bros., who have owned and operated the elevator at Jamestown, Ind., for the past seven years, have sold the same to H. E. Kinney of Indianapolis. The new owner has taken possession.

The grain firm of Young & Taggart at Wooster, Ohio, has been dissolved. Mr. Young has not fully decided as to his future plans, but Mr. Taggart will re-engage in the grain, flour and feed business.

Nelson Dresbach has bought the elevator at Kinikinnick, Ohio, from the N. & W. Railway Co., who recently bought it at sheriff's sale. It is said that Mr. Dresbach may move the house to Delano, Ohio.

The Garland Milling Co. of Greensburg, Ind., will erect a large elevator near its plant in that city during the coming summer. The company has been greatly hampered for lack of storage room, as the present elevator is inadequate to the needs of the business. The new house will cost about \$6,000. It is said that the company may erect grain ware-

houses at other points as well, to be used as feeders for the Greensburg plant.

Ray, Stevenson & Co. is the style of the firm succeeding Jeff Ray & Son in the grain, hay and seed business at Grand View, Ind.

The Etna Lumber, Grain and Milling Company has succeeded the firm of J. G. Anglin & Co. at Etna Green, Ind. The change took place on March 24. The management is the same as formerly, the change being in name only.

S. Summers, T. A. Hodson and W. Spear have purchased the site in New Vienna, Ohio, occupied by the Routh Elevator before its destruction by fire, and will erect an elevator. They will do business under the style of the New Vienna Grain Co.

The W. H. Gardner Grain Co. of Bellevue, Ohio, has taken over the mill at that place recently purchased from the firm of McLaughlin & Bierbricher. The name of the company has been changed to W. H. Gardner Grain & Mill Co., effective April 3.

L. R. Good has purchased the interest of his partner, Leroy Rhoad of Bairdstown, Ohio, in the elevator and grain business at Bloomdale, Ohio, heretofore conducted under the firm name of Good & Rhoad. Mr. Good will continue the business alone.

The Toledo Salvage Co. of Toledo, Ohio, purchased about 20,000 bushels of the grain damaged by fire at the recent destruction of Elevators D and E at New Orleans, La. Most of this was sold in the South, thus not necessitating its removal to the Toledo plant.

John Hazelrigg, manager of the E. A. Grubbs Grain Co., is making arrangements to rebuild the elevator at Cambridge City, Ind., which was destroyed by fire last fall. The new building will be 24x46 feet in dimensions. Construction work will be commenced at once.

F. E. Kelsey of Caro, Mich., has purchased an interest in the Caro Elevator Co. of that city, and has been elected manager. The company is composed mainly of stockholders in the Saginaw Milling Co. and handles grain, hay and produce. It is virtually a branch of the Saginaw concern.

Harry H. Hill has sold his interest in the Metzger-Hill Grain Co. of Cincinnati, Ohio, which owns and operates a string of country elevators in Illinois, Indiana and Ohio. His retirement took place on April 1 and it is announced that he will continue in the same line of business, but no further details are given. Mr. Hill retired from the Union Grain and Hay Co. about a year ago to take an interest in the company which he is leaving.

Joseph W. Witt, who recently purchased the site of the old Globe Mills, at Lebanon, Ind., from Adney, Walker & Co., has let the contract for the erection of an elevator and feed mill. The building will be four stories in height, metal clad, and will cost, together with the equipment, about \$10,000. The debris of the old mill building has been cleared away and work on the new structure commenced. It is expected to be completed about August 1.

Burglars blew open the safe in the office of Niezer & Co.'s elevator at Monroeville, Ind., on the night of March 23. There was no money on hand, but the robbers carried away a package of notes aggregating \$300 and the insurance policies on the building. The losses sustained by the firm come from the destruction of the safe, and the damage done to the building was about \$400. The total loss to safe and building was \$500, wholly uninsured.

The Baird-Lowenberg Co., recently organized at Detroit, Mich., with a capital of \$40,000, for the purpose of handling grain, potatoes, wool, fruit, etc., will build several warehouses along the line of the Ann Arbor Railroad. The stockholders of the company are: C. H. Baird, Columbus, Ohio; J. S. Lowenberg, Freeport, Mich.; Alix Imerman and Robert Plotter of Sherman, Mich.; William Imerman of Thompsonville, Mich., and John Imerman of Detroit.

The firm of T. J. Haybarker & Co. of Adrian, Mich., dealers in grain, hay and feed, has been dissolved. Mr. Haybarker has sold his interest in the business to L. Frensdorf & Son of Hudson, Mich., and they, with M. F. Cutler, the other member of the old firm, will continue the business. A Mr. Dickerson, who has been with the Frensdorfs for a number of years, will be their Adrian representative, the business being conducted under the style of Cutler & Dickerson.

The elevator on the East Side in Defiance, Ohio, known as the Farmers' Elevator, has been sold by J. S. Greenler and W. J. Slough to L. C. Roehrig for \$10,000. The elevator was built about a year ago and will be operated by the new owner. He will, however, erect another elevator in the northern part of the city. A site has been secured and construction work will shortly be commenced. The location of the present elevator, while convenient for the farmers living east of Defiance, is unhandy for those living north of the city. For this reason

and for the purpose of extending the business Mr. Roehrig will build the additional elevator. Mr. Slough will be retained as general manager of both houses.

The Southern Grain Co. is planning the erection of an elevator with a capacity of between 30,000 and 40,000 bushels in Cincinnati, Ohio. The company is an Ohio corporation, but is an affiliated concern of the Knoxville City Mills of Knoxville, Tenn., and J. Allen Smith is president. J. C. Heller is Cincinnati representative.

Burrell & Morgan, owners of the City Mill and operators of the Harvest Queen Mill, both at Elkhart, Ind., have bought W. H. Barker's elevator on the Lake Shore road at Mishawaka, Ind. The elevator has a capacity of 7,000 bushels and has a feed mill in connection. It will be used as a feeder for the firm's two mills. Mr. Barker will embark in some other line elsewhere after taking a rest from the cares of business. Messrs. Burrell & Morgan are former residents of Wabash, Ind., but removed to Elkhart several years ago to engage in the milling business.

The Union Grain Co. is the style of a new corporation which has been formed at Anderson, Ind., and will erect a large elevator. George A. Lambert, head of the company, is the owner of the land on which the elevator will be built. The plans have been completed and construction work will be commenced as soon as the foundation is in and a sidetrack provided for. Part of the building will be five stories and the remainder three stories high. It will be built of concrete and steel and will be 140x42 feet in size. Stewart McCollum will be local manager for the new company.

EASTERN.

H. T. Ide may open a retail grain store in Lyndon, Vt.

It is reported that a grain elevator will be erected at Salem, N. H.

The new elevator in connection with the mill at Corinna, Me., is completed.

H. H. Bushey succeeds Mrs. C. E. Bushey in the grain business at Stevens, Pa.

Work on Henry A. Bugbee's new grain elevator at Willimantic, Conn., has been commenced.

A switch track from the New Jersey Central Railway has been built to the new elevator of Van Zandt & Voorhees at Plainfield, N. J.

The office of C. W. Keeler's elevator and feed mill at Danbury, Conn., was entered by burglars on the night of March 31. About \$50 was taken from the safe.

The Lexington Grain Co. has been incorporated at Lexington, Mass., with a capital of \$10,000. John L. Charles F. and George W. Spaulding Jr. are the incorporators.

P. H. Crawford has sold his grain business at Plymouth, N. H., to William Patterson, who operates a feed mill and conducts a flour and feed business in that town.

The recently chartered Pottsville Feed Co. of Pottsville, Pa., will erect an elevator in that city. It will be of brick construction, 69x18 feet in size and 35 feet high. A brick boiler house will also be built.

The grain elevator and warehouse at Fourteenth and Regina streets, Harrisburg, Pa., which has been operated for the past year by E. B. Gross, has been sold by D. M. Beck to David Keapough of New Cumberland, Pa.

Daniel McQuesten, who has been connected with the Annis Flour and Grain Co. at Manchester, N. H., for several years, has severed his connection with that concern and engaged in business for himself in East Manchester.

Herman E. Jefts has sold his hay, grain and flour business at Jeffersou, Mass., conducted under the style of H. E. Jefts & Co., to E. A. Cowee of Worcester, Mass. Mr. Jefts did not sell his coal business, but will continue it and will also act as manager of the other business for Mr. Cowee.

Ansel A. Beckwith, who has been engaged in the wholesale and retail grain, flour and feed business at Norwich, Conn., since 1885, has sold out to the Norwich Grain Co. The property sold by Mr. Beckwith consists of a large elevator, a grain store and warehouse, feed mills, etc. The grain elevator has a storage capacity of 25,000 bushels of grain as well as room for about thirty carloads of flour, hay and feed. The power plant is equipped with a 100-horsepower engine and boiler. The cob mill connected with the plant has a grinding capacity of 1,200 to 1,500 bushels a day. There are also two feed mills connected with the plant. There is a spur track at the rear of the property as well as fifty-five feet of dock room, so that shipments can be made by both rail and water. The Norwich Grain Co. was in a measure a rival concern and was established about eight years ago. George R.

Havens is president and general manager. Mr. Beckwith will remain with the new management for the present.

D. M. Baker and B. R. Hollinger, who have been conducting a grain and milling business at Manheim, Pa., under the firm name of D. M. Baker & Co., have dissolved partnership. Both will continue separately in the same business. Mr. Hollinger has leased the Erb Mill near Manheim.

The Star and Crescent Milling Co. has filed articles of incorporation under the laws of Maine, with headquarters at Portland. It is authorized to deal in grain and cereals of all kinds. The capital stock is \$500,000 and the officers are: Millard W. Baldwin, president, and James J. Hernan, treasurer, both of Portland.

Work has been started on the elevator at Mystic Wharf, Charlestown (Boston), Mass., for the Boston & Maine Railroad Co., and will be pushed as rapidly as conditions will admit. The work will be done under the supervision of the Boston & Maine Co.'s chief engineer, Hezekiah Bissell, and the John S. Metcalf Co. of Chicago.

W. N. Potter of Greenfield, Mass., has purchased the grain store in Gardner, Mass., which has been conducted for the past year by the Granger Co-operative Association of Gardner. Mr. Potter will continue the business under the style of the W. N. Potter Grain Co. It is said that he will erect an elevator at Gardner this spring.

The Colchester Grain and Coal Co. has been incorporated at Colchester, Conn., with a capital of \$20,000 to deal in grain and fuel. Jacob Gordon, Jacob R. Slosberg, Michael Levin and Moses Klingon are the incorporators. The new company has purchased E. F. Strong's grain, coal and lumber business at Colchester and taken possession.

CANADIAN.

The Nanton Lumber and Grain Co. has been chartered at Nanton, Alta.

C. Moe is building an addition to his flour and feed store at Rainy River, Ont.

The Boharm Elevator and Trading Co., Ltd., has been incorporated at Boharm, Assa.

Extensive additions are being made to the tank section of King's Cleaning Elevator at Fort William, Ont.

Joseph Ward & Co., wholesale seed and produce merchants of Montreal, Que., recently suffered a loss by fire.

Advices from Douglas, Man., state that elevators in that section are closing down, as very little grain is being received.

Hay Bros., grain dealers of Listowel, Ont., have bought James Murphy's elevator at Mount Forest, Ont. A. Moyer, formerly of Listowel, will have charge of the business for the new owners.

The Leighton Farmers' Elevator Co. has been incorporated at Deloraine, Man., with a capital of \$10,000. The incorporators are: T. J. Freeland, J. C. Barrett, W. Innes, Alex. Innes, John Innes and James Innes.

The Canadian Co-operative Co., capitalized at \$20,000, has been chartered at Winnipeg, Man., to carry on a general grain business. A. Atkinson, C. H. Forrester, J. McVicar, G. A. Elliott and C. Brown, all of Winnipeg, are the provisional directors.

The elevator which the Keewatin Flour Mills Co., Ltd., will erect in connection with its proposed 5,000-barrel flour mill at Keewatin, Ont., will have capacity of 500,000 bushels. The company acquired valuable water power at Keewatin some time ago.

The Ogilvie Flour Mills Co., Ltd., recently compiled a careful estimate of wheat remaining in farmers' hands in the country tributary to their 95 elevators, situated all over the wheat belt. After making allowances for seed requirements, the percentage is less than 6 per cent of the whole crop, or equivalent to reserves of under 3,500,000 bushels, which is considerably lower than expected.

The Canadian Pacific Railway Co.'s new fireproof Elevator B. at Fort William, Ont., constructed to take the place of the wooden elevator destroyed by fire last May, was tested on April 7 by the C. P. R. and the government scale inspectors, four cars of wheat being weighed up. The house was built by the Barnett & Record Co. of Minneapolis, and is working to the satisfaction of both the contractors and owners.

A recent dispatch from Fort William, Ont., states that there is a well-founded rumor current to the effect that there would be another large elevator erected there this spring by the Empire Elevator Co. of Winnipeg. The rumor was neither confirmed nor denied by J. P. Jones, the local manager. When asked as to the capacity of the proposed elevator he stated that it would likely be between 1,500,000 and 2,000,000 bushels. The elevator erected at Fort William by this company last year is too

small to accommodate the rapidly increasing business.

The Grand Trunk Railway Co. has placed a large order for machinery to be installed in its new 1,000,000-bushel grain elevator at Windmill Point, Montreal, Que.

In regard to the proposed government elevator at Port Colborne, Ont., the minister of railways and canals stated in the House of Commons recently that it would be constructed of concrete and iron, and would be of the most modern design. The total cost would be \$1,100,000, and a vote of \$310,000 on account was passed. Replying to questions as to the general policy of the government upon elevators at this point the minister stated that the construction of the elevator was the natural sequence of the construction of the breakwater and the other improvements at Port Colborne. The government deemed it in the interest of the Dominion, in order to prevent one or two transportation companies getting control of the waterway. Only a limited number of elevators could be provided there, and if one or two private companies constructed elevators there they would obtain exclusive control. Several applications have been made for sites from private corporations, and it was deemed to be imperative in the public interest that the government should construct a large elevator there, which would be open to the general public upon conditions laid down by regulations. By this means all interested in the transportation question would have an opportunity of availing themselves of the elevator facilities.

A dispatch from Fort William, Ont., under date of March 31, says: "F. W. Morse, vice-president and general manager of the Grand Trunk Pacific, announces that the terminus of the Lake Superior branch of the road will be the tract of land known as the Indian Mission, adjoining Fort William, and on the south side of the Kaministiquia and Mission rivers. Mr. Morse has communicated the decision of the company to the mayors of Fort William and Port Arthur, respectively, and council has ratified the agreements. The Indian Mission property is an island comprising about 3,000 acres, one-half of which is level land, but at present scarcely occupied, and the rest is taken up by Mount Mackay, which is 1,000 feet high. The company will erect extensive docks along the Kaministiquia River, above the Canadian Pacific Railway docks, and will spend large sums on grain elevator, freight sheds and other things incidental to the new terminal. The line will enter the town from the west, midway between the Canadian Pacific and the Canadian Northern railways. Construction will commence at once. The town will pay the company \$300,000 to be made when the company has expended \$900,000. All the land acquired by the company will be incorporated in the town of Fort William, and arrangements made for a railway and traffic bridge."

MINNESOTA AND WISCONSIN.

A farmers' elevator is talked of at Danube, Minn. Farmers at Dawson, Minn., will build an elevator.

The Atlantic Elevator at Elbow Lake, Minn., is closed.

The S. Y. Hyde Elevator Co. has sold its house at Iona, Minn.

The Hubbard & Palmer Co. has closed its elevator at Slayton, Minn.

C. Howard Snyder has bought the Inter-State Elevator at Morris, Minn.

A company is being formed at Alpha, Minn., to establish a farmers' elevator.

The farmers' organization at Airlie, Minn., has been granted an elevator site.

McGlin Bros. have bought the Canton Grain Co.'s elevator at Lakefield, Minn.

Farmers around Edgerton, Minn., are engaged in organizing a co-operative elevator company.

The Red Lake Falls (Minn.) Milling Co. has installed a feed mill in its elevator at Greenbush, Minn.

The Monterey Farmers' Elevator Co. of Monterey has filed articles of incorporation, with a capital of \$10,000.

The Columbia Elevator Co.'s house at Hector, Minn., is closed and will not be reopened until September.

The Farmers' Elevator Co. of Lake Park, Minn., is negotiating with the Rock Island road for an elevator site.

J. F. Heiberg has bought the Great Western Elevator at Twin Valley, Minn., for \$4,000 and will operate it.

The Walter Bowman Elevator Co. of Mankato, Minn., will build a 16,000-bushel elevator at Grogan, Minn., and has awarded the contract to the Younglove & Boggess Co. of Mason City, Iowa. The new elevator will be equipped with a 6-horsepower

gasoline engine, a 4-ton Fairbanks, Morse & Co. Dump Scale and a 60-bushel hopper scale of the same make.

The Blooming Prairie Farmers' Elevator Co. has purchased the Hunting Elevator Co.'s house at Blooming Prairie, Minn.

At Olivia, Minn., a farmers' elevator company has been organized. Nick Brules is president and Charles Kenning, secretary.

A farmers' elevator is projected at Lismore, Minn. A committee is now engaged in soliciting shares of stock in the enterprise.

The elevator at Granada, Minn., owned by De Wolf & Wells is closed and the buyer, Thomas Clapp, has gone to Spencer, Iowa.

Joseph Franzen has taken over and will operate the feed mill and wood yard connected with the Swenson Elevator at Lafayette, Minn.

An effort is being made to organize a branch of the Minnesota Farmers' Exchange at Long Prairie, Minn., and build a co-operative elevator.

The Eagle Roller Mill Co. of New Ulm, Minn., is reported to be about to build several elevators in Western Minnesota and Eastern South Dakota.

A movement is on foot at Hastings, Minn., to organize a farmers' co-operative elevator company to buy and operate the R. E. Jones Co.'s elevator.

It is said that the Mower County Farmers' Exchange proposes to erect an elevator on the Great Western right-of-way at Dexter, Minn., to cost \$5,000.

The A. G. Wells Co.'s elevator at De Pere, Wis., is again in operation after being closed down for some time for repairs. A new boiler has been installed.

A farmers' co-operative elevator company has been organized at Lake Wilson, Minn., for the purpose of building an elevator. A. I. Olson is president.

A movement is on foot to organize a company of farmers to build an elevator and put in a lumber and coal yard at either Murdock or Kerkhoven, Minn.

Quinn Bros. have closed their elevator at Litchfield, Minn. It is said that they will build a new one as soon as some buildings now in the way can be moved.

The Pelican Rapids Co-operative Warehouse Association will build an elevator at Pelican Rapids, Minn. F. Damschen is secretary. A site has been secured.

The New Richmond Roller Mills Co. is tearing down the old Wells & Mulrooney Elevator at New Richmond, Wis. The Omaha road will erect a roundhouse on the site.

The Bander Grain Co. has filed articles of incorporation at Minneapolis, Minn., with a capital of \$10,000. The incorporators are: J. R. Stewart, J. B. Gilfillan Jr. and G. F. Briggs.

The R. E. Jones Co. of Wabasha, Minn., has closed its grain elevator at Hastings, Minn. The reason assigned is excessive freight rates and the insufficiency of grain marketed.

The Cargill-Robb Elevator Co. has been granted a charter. It is capitalized at \$50,000, and the headquarters will be at Minneapolis. S. S. Cargill and J. A. Robb are the incorporators.

The Walter Bowman Elevator Co.'s cleaning house at St. Peter, Minn., will be overhauled and new cleaning machinery installed. The Younglove & Boggess Co. of Mason City, Iowa, has the contract.

The Ebner Milling Co. of Wadena, Minn., will build a 10,000-bushel steel storage elevator at its plant in that city. It will rest on a concrete foundation and will be 28 feet high and 25 feet in diameter.

The Mower County Farmers' Exchange will erect an elevator on the Great Western Railway at Austin, Minn. It is to be ready for operation by June 1. The exchange will handle coal in connection with the grain business.

The Farmers' Store and Grain Co. has been incorporated at Cameron, Wis., with a capital of \$20,000. The incorporators are Grant A. Young, Charles E. Bartlett and Guy A. Young. The company will deal in grain, hay, produce, merchandise, etc.

About 200 farmers residing in the vicinity of Rothsay, Minn., are organizing a co-operative elevator association and propose to buy or build an elevator in time to handle the coming crop. The present officers are T. Nelson, president, and Alfred Wood, secretary.

The Minkota Mill property at West Superior, Wis., has been sold by the Standard Milling Co. to a company represented by H. W. Stone, a banker of Denson, Minn. It is understood that the present plant will be used for wheat mixing, and that new elevators will possibly be put up for shipping. The deal was made on March 30, and

the transfer took place soon afterward. The Minnoka is one of the same group of mills to which the Grand Republic, which was recently sold, belongs. The elevator capacity is 125,000 bushels, and the mill is a 900-barrel plant.

The Springfield Farmers' Elevator Co. of Springfield, Minn., has accepted plans for a 30,000-bushel elevator prepared by the Younglove Construction Co. of Mason City, Iowa. The contract has been let and the elevator will be completed by July 1. It will be built on the old Van Dusen Elevator site.

Farmers and business men in the vicinity of Beaver Creek, Minn., are considering the matter of organizing a co-operative elevator company and building an elevator during the coming summer. At a meeting held recently a committee was appointed to solicit subscriptions for shares in the proposed company.

COMMISSION

S. J. Gibbey has engaged in the grain, feed and hay brokerage business at Philadelphia.

Lindman & Co. of Chicago have withdrawn from the Milwaukee market after trading there for a number of years.

Henry E. Wehry of the Metzger-Hill Grain Co. has applied for membership in the Cincinnati Chamber of Commerce.

Edward J. Schaack has gone with Ware & Leland of Chicago, as one of their wheat traders, after a connection of 15 years with Irwin, Green & Co.

Ellsworth, Daly & Co. of Brooklyn, N. Y., have incorporated to deal in cereals. A. S. Ellsworth of Brooklyn and J. Daly of New York compose the firm.

It is announced that John L. Rodgers of John L. Rogers & Co., Baltimore, will retire from that market and will represent McReynolds & Co. of Chicago in St. Louis.

L. G. Graff & Co. of Philadelphia will enter the export grain business. Wm. Howell Jr., heretofore associated with Hancock & Co., will be in charge of the new department.

F. O. Paddock, president of the United Grain Co., who has been enjoying an extended Southern trip, accompanied by Mrs. Paddock, has returned to his home in Toledo.

The well-known Pittsburg grain and hay commission firms of D. G. Stewart and Geidel & Co. on April 1 consolidated their business, under the firm name of D. G. Stewart & Geidel.

C. G. Gates & Co. has been admitted to membership in the Chicago Board of Trade clearing house. Heretofore the firm has been clearing through eight or ten different commission houses.

N. Bnwolf and S. P. Clark, secretary and treasurer of the Northwestern Elevator Co., Winnipeg, were in Chicago early in the month. They report brilliant wheat prospects in the Canadian Northwest.

Edward G. Heeman, Chicago, has just published a revised edition of his private cipher code. In addition to the code the book is replete with statistical information, compiled to date, of value to the grain man.

Frank K. Miller has withdrawn from the firm of C. W. Wager & Co., grain commission, Philadelphia, and has become treasurer of the Millbourne Mills Co. Mr. Wager continues the business under the old firm name.

Rubins Bros. of New York have opened an office in Buffalo, with O. A. Brnso, for several years with the Whiting-Eckstein Seed Co., as manager. The firm has offices in Chicago, St. Louis, Minneapolis and other cities.

The Twin City Elevator Co. of Minneapolis has filed articles of incorporation with the secretary of the state. The capital stock is \$200,000 and the incorporators are J. W. Holt, G. W. Jenkins and C. F. Jenkins.

The grain and flour business of E. Dunwoody & Co., Philadelphia, of which the late Charles Dunwoody was head, will be continued for the present by W. H. Shofner and Mr. Zook, who have been connected with the business for a number of years.

John A. Barnes was on March 31 appointed receiver for L. Everingham & Co., a Chicago commission house which has been in business for the past 25 years. The liabilities are placed at \$62,539.21 and the assets at \$63,751.77. Of the latter \$61,540 are open accounts. The firm had branch offices at Milwaukee, Minneapolis and Peoria. A gradual decrease in trade and heavy operating expenses are said to have been re-

sponsible for the failure. The firm was one of the oldest and most respected on the Board.

T. A. Bryant, formerly representative of Brinson-Waggoner Grain Co. of St. Louis, Mo., will represent Wright, Bogert & Co. of Chicago, as general traveling representative in Western territory. Mr. Bryant will have headquarters at Rockford, Ill.

C. A. Foster, Pittsburg, Pa., has removed from the McCance Block, Seventh Avenue and Smithfield Street, to the Grain Exchange Building, corner Penn Avenue and Tenth Street. The new offices are in rooms 206 and 208 on the second floor of the building.

F. W. Moury, grain and flour broker of Philadelphia, and a member of the Commercial Exchange, gave notice on March 28 that he was unable to meet his obligations and that his affairs had been turned over to Francis S. Laws. The failure is not a heavy one.

E. C. Wall has again become a member of the grain commission firm of Jackson & Co. and will have offices in the Chamber of Commerce Building, Milwaukee. Mr. Wall withdrew from the firm when he was named by Wisconsin Democrats for the presidential nomination. The other members of the company are William S. and Howard B. Jackson of Chicago.

The Canadian Co-operative Co., Ltd., has been incorporated with a capital stock of \$20,000. The incorporators are Charles Henry Forrester, merchant; St. John McVicar, grain broker; Charles Brown, merchant, and George Andrew Elliott, barrister-at-law, all of Winnipeg. The company is empowered to deal in grain, farm produce, live stock, merchandise, etc.

Alex McKinnon has been expelled from membership in the Minneapolis Chamber of Commerce and the firm of McKinnon, Son & Co. has had its privilege of doing business in the Chamber rescinded. The action was taken on complaint of C. E. Jackson of St. Cloud, Minn., who alleged that the firm made a false return on a sale of grain. The firm has petitioned for a rehearing and it will probably be granted.

The details of the incorporation of the Early & Daniel Co., Cincinnati, have been announced. It is capitalized at \$150,000 of 6 per cent cumulative preferred stock, \$100,000 of which is to be sold, and \$200,000 of common stock. The statement shows the net average earnings to be \$33,487.50, which is 22½ per cent of the total issue of preferred stock. The company operates one-half of the Big Four Elevator, which has a capacity of 400,000 bushels.

At a recent meeting of the board of directors of the Boston Chamber of Commerce censure was administered to E. C. Howlett, a grain merchant, for his part in the transaction on the floor of the Chamber January 10, by which certain parcels of corn were purchased by the A. Fred Brown Commission Co. of A. Fred Brown, personally, through E. C. Howlett, acting as broker. It was voted at a meeting of the board of directors on March 7 that this censure be administered by the president of the Chamber. For his part in the deal, A. Fred Brown is at present suspended from the privileges of the Exchange.

Edward G. Heeman of Chicago has found it necessary, through a gratifying increase in his business, to remove to more commodious quarters at 159 La Salle Street, Rotunda, National Life Building. The new offices will include a customers' room, where continuous stock and grain quotations will be posted, gossip tickers, etc. There will be also private wires to the New York stock and cotton, as well as to other leading exchanges, insuring the prompt execution of orders in stocks, securities and cotton, as well as in grain. In addition he will have private wire connection with the Milwaukee market which will enable him to handle business in puts and calls. As formerly all business will be transacted through and confirmed by Chas. W. Gillett.

The grain and feed dealers of New Britain, Conn., say that they have been losing money by not getting back the bags they give out to farmers who seem to make it a point not to return the bags, but sell them to peddlers. One of these was found in possession of 68 with local dealers' names on them. When he attempted to sell them, the police were called upon to interfere and the grain men recovered their property.

The Iowa railroads running "seed specials" through that state and the Iowa Grain Dealers' Association is paying for the printing of thousands upon thousands of Ames College Bulletins being sent out to farmers to demonstrate the Holden seed corn tests, there being no funds provided at Ames for carrying on this extension work and that the cost has to be paid by parties interested for commercial reasons in securing better corn results.

THE EXCHANGES

G. D. Rogers, secretary, has issued the annual report of the Minneapolis Chamber of Commerce.

The Nashville Grain Exchange of Nashville, Tenn., is considering the advisability of holding a corn exhibit in the fall.

Application for membership on the New York Produce Exchange has been made by Dwight M. Baldwin of Minneapolis.

The new Lincoln (Neb.) Grain Exchange has adopted by-laws and a committee is at work devising plans for the erection of the proposed terminal elevator.

Four new elevators will be installed in the Chicago Board of Trade Building, to replace those now in use. The change calls for an expenditure of about \$20,000.

The thirty-fifth annual report of the Peoria Board of Trade has been issued by Secretary R. C. Grier. The report is for the year 1904 and is a comprehensive review of the grain trade.

The Omaha Grain Exchange has issued its first annual report, showing what the Exchange has accomplished in the first year of its existence. It is referred to at length in another column.

The annual sale of telephones on the Chicago Board of Trade netted \$700 in premiums. Bartlett, Frazier & Carrington paid \$190 for first choice. Logan, Bryan & Co. and Pringle, Fitch & Rankin were next, at \$75.

The transportation committee of the Chamber of Commerce of Savannah, Ga., has investigated the charges of local grain dealers that the cost of storing grain in Savannah is too high and reports that there is no ground for complaint.

It is probable that a new clearing house scheme will be put in operation at Kansas City at an early date. B. H. Garrigues, of the Missouri Valley Car Service Association, has submitted a plan to the grain exchange which calls for a joint railroad office to care for all inbound freight, demurrage and storage charges and the payment and collection of freight bills computed on elevator rates. It is expected that the grain merchants will ask the railroads to place the clearing office in operation as soon as practicable.

President W. S. Jackson of the Chicago Board of Trade made his appearance on the floor on April 3, after a vacation spent in the South. On conditions in the gulf markets he said: "New Orleans is working hard to get its share of the corn trade, and there is undoubtedly a large amount of corn naturally tributary to that market, and except in the hot months it is to be expected that they will continue to do a big business. They are rapidly getting over the effects of the fire, two of the smaller elevators having been restored already. Sentiment in the South on crop conditions is optimistic."

Standing committees and officers were appointed at the recent annual meeting of the directors of the Detroit Board of Trade as follows: Executive, T. G. Craig, J. T. Hornung, H. E. Botsford. Finance, F. J. Simmons, George Beck, John Croydon. Transportation, T. G. Craig, J. T. Shaw, F. T. Caughey. Information and statistics, F. T. Caughey, A. S. Dumont, F. J. Simmons. Floor, A. J. Ellair, H. E. Botsford, J. Croydon. Membership, F. T. Caughey, H. E. Botsford, J. Croydon. Grain inspection, F. T. Caughey (chairman), T. G. Craig, J. T. Shaw, A. J. Ellair, L. A. Parsons, H. E. Botsford, A. S. Dumont. Secretary and treasurer, Frank W. Waring. Grain inspectors, Charles Upham, J. C. Hatch, J. J. King. Bean inspector, J. C. Hatch.

NEW QUARTERS FOR PITTSBURG EXCHANGE.

With a view to centralizing the business the Pittsburg Grain and Flour Exchange will, on or about May 1, take possession of the Fort Wayne office building at Penn Avenue and Tenth Street. The structure will be rechristened and in future will be known as the Grain Exchange Building.

The Exchange has occupied rooms in the McCance Block at Liberty and Smithfield streets and Seventh Avenue for a number of years, and a number of dealers have also had offices in this building. Nearly all of them will move to the new quarters at once and others will follow later.

The Exchange rooms will be on the third floor of the new Exchange Building, which will be altered to suit the requirements of the business. There will be a director's room, superintendent's room, grain inspector's room and a large assembly

room, with lavatories and all the modern conveniences for the comfort of the members.

As fast as possible the grain dealers, who are now scattered throughout the downtown district, will take up offices in the new quarters, and within a short time a majority of the Pittsburg grain offices will be under one roof.

ILLINOIS ARBITRATION DECISIONS.

The following are reprints of four decisions in arbitrated cases, by W. S. Smith, H. I. Baldwin and Lee G. Metcalf, arbitration committee of the Illinois Grain Dealers' Association:

THE UNITED GRAIN CO., TOLEDO, O., vs. THE SHELLABARGER ELEVATOR CO., DECATUR, ILL.

This case is a difference arising from a sale of corn by the Shellabarger Elevator Co. to the United Grain Co., which the Shellabarger Elevator Co. filled only in part. The only question at issue was the time at which the United Grain Co. should have bought in the balance of the corn contracted for.

On April 8, the Shellabarger Elevator Co. wired the United Grain Co. that they would not ship the balance of the corn, as they were very much dissatisfied with the inspection at Toledo. The committee claim this was positive information to the United Grain Co., who should have acted on it at once.

The committee find as follows: The United Grain Co. should have bought in the grain due them from the Shellabarger Elevator Co. upon receipt of the Shellabarger Elevator Co.'s telegram of April 8.

We further find that according to the published bid of the United Grain Co. on April 8, No. 3 yellow corn was worth 43½¢, and No. 3 white corn was worth 43½¢ (the No. 3 white corn having originally been sold at 40¢ and the No. 3 yellow corn having originally been sold at 42¢), and that, therefore, the United Grain Co. are entitled to:

1½¢ per bushel on 153.42 bushels yellow corn not shipped, amounting to.....	\$ 2.50
3½¢ per bushel on 7,497.18 bushels white corn not shipped, amounting to.....	224.29
½¢ per bushel commission on 7,651.04 bushels, amounting to	38.26

Total \$265.05

Against this, draft for \$229.53 mailed to the United Grain Co. by the Shellabarger Co. on May 19 should apply, leaving \$35.52 due the United Grain Co. from the Shellabarger Elevator Co.

EVANS BROS. & MORISY, PADUA, ILL., vs. T. A. GRIER & CO., PEORIA, ILL.

This case involved the sale of 10,000 bushels of corn by Evans Bros. & Morisy to T. A. Grier & Co., on October 22, 1904, Peoria terms for shipment by November 21, 1904, at 42¢ f. o. b. Padua, Ill. We find that Evans Bros. & Morisy defaulted in the shipment on above sale, and that no correspondence of any kind passed between above firms regarding the deal between November 21 and November 26, on which day T. A. Grier & Co. bought in the 10,000 bushels on the Peoria market at 46¢, which was practically 43¢, f. o. b. Padua, and for which they charged Evans Bros. & Morisy one cent per bushel market difference and one-half cent per bushel commission.

The contention between above parties was as to when T. A. Grier & Co. should have bought in the corn for account of Evans Bros. & Morisy.

The evidence submitted showed that the rules of the Peoria Board of Trade do not specify when above grain should have been bought in, and according to the trade rules of the Illinois Grain Dealers' Association, we decide under rules Nos. 4 and 20, which read as follows:

"Rule No. 4—Shipment.—Should the seller find that where his contract provides a specific time for shipment, he will not be able to fill the sale within the time specified, it shall then be his duty to advise the purchaser by mail, wire or 'phone of the probable deficit, at which time the purchaser may elect to cancel, extend time of shipment, at either the original or agreed price, or advise seller that he will be obliged to buy said deficit in the market for which the grain is sold to the best advantage for his (the seller's) account, and render a statement accordingly; and on contracts providing a specific time of arrival, the buyer may elect to cancel such contract or any balance that may still be due; or it shall be his duty to cover the contract or any deficit on same, basing the deficits on shippers' weights or estimates; and wherever shippers' weights or estimates are not given, on his own fair estimate of the contents of the cars that have been applied on the contract.

"Rule No. 20.—Notice at Expiration of Time Shipment.—It shall be the duty of purchasers of cash grain and feedstuffs to advise the seller by

wire the day the contract expires, whether the buyer will extend the time of shipment or buy in for the seller's account, or is compelled to cancel the unfilled portion of contract. Failing to so advise, it will be understood by both parties that the time is extended five days."

Held, that T. A. Grier & Co. were acting within their rights in buying in above sale at market price on November 26, and committee award to T. A. Grier & Co. the amount claimed by them as their due from Evans Bros. & Morisy on the transaction, viz., \$150.

A. W. ANDERSON, HOLDER, ILL., vs. T. A. GRIER & CO., PEORIA, ILL.

In this case A. W. Anderson consigned a car of oats to T. A. Grier & Co. A card (copy of which appears below) was tacked on the outside of each side door of the car:

"Notice.—This car of grain has been carefully weighed and affidavit can be furnished. The exact weight is 58,640 pounds. Car leaves in good repair, properly coopered, and doors fastened with seal No. ——. If car arrives in leaking condition, bad order or weight varies materially from above, you are required to take note of such weight variation at the time of weighing, fully investigate and report condition of car.

"—, 1904.

"A. W. ANDERSON, Holder, Illinois."

The Weight Certificate given below was mailed to T. A. Grier & Co. by A. W. Anderson:

"Grain Weight Certificate.—Holder, Ill., 1904.

"This is to certify that Car No. —, Initial —, contains — lbs. of —, and that the same was carefully weighed this — day of —, 1904. And I further certify that this car is in good repair, properly boarded, with both doors fastened with seals No. —. You are required to observe notice on door this car concerning weight and car condition."

The car was a 40-foot I. C. car of 80,000 lbs. capacity, and was sold by T. A. Grier & Co. to Frank Hall & Co., for the Great Western Cereal Co. The instructions of A. W. Anderson on the card and the mailed notice were ignored by T. A. Grier & Co., and no mention of same made to Frank Hall & Co. or the Great Western Cereal Co., which latter company weighed the car on a 36-foot track scale, in two drafts, one end of the car being off the scale at each weighing.

The weights given by A. W. Anderson were 58,640 lbs., and by the Great Western Cereal Co., 37,450 lbs., a discrepancy of 21,190 lbs.

The Committee find as follows: We find that T. A. Grier & Co. handled the car of consigned oats in question in accordance with the custom prevailing in the Peoria market at that time, but did not handle same in accordance with the specific instructions given them by A. W. Anderson at the time the car was shipped, the evidence showing that consignee ignored the specific instructions of the consignor, which in our judgment they should have complied with when accepting this car on consignment. We further believe that had proper notice been given all parties concerned by the consignees, in accordance with the specific instructions given them by the consignor, the loss on this car might have been avoided, and we decide that T. A. Grier & Co., on account of such negligence, shall settle with A. W. Anderson on the basis of said Anderson's sworn hopper scale weights, and that T. A. Grier & Co. shall pay A. W. Anderson the amount claimed by him as due on account, viz., \$42.05.

THE UNITED GRAIN CO., BUFFALO, N. Y., vs. GEO. W. SMITH, WAYNESVILLE, ILL.

This case is a difference arising from an error made by the railway company in billing a car of corn from Geo. W. Smith to the Empire Grain Co., instead of to the United Grain Co., which error was corrected by Smith as soon as his attention was called to it and in ample time for the railroad company to correct billing before the car reached Buffalo. In consequence of which error and failure of the railroad company to correct their billing the car drifted around in the yards at Buffalo, N. Y., a long time before the United Grain Co. knew of it; and to complicate matters still more, the corn was transferred twice to other cars by the railroad company on account of its getting hot and out of condition, and the railroad company thought it would better its condition to transfer it.

This changed the number on the arrival notice, so that the railroad company did not know that the car belonged to the United Grain Co. and did not notify them of its arrival. The corn was hot when turned over to the United Grain Co., and was sent to the driers by them. They made the statement that the corn was worth 37¢ per bushel after drying.

The Committee find as follows: That according to the statement furnished by the United Grain Co. the contents of 62,800x7,146x20,938 was worth in Buffalo after drying 37¢ per bushel, and that a

reasonable charge for drying corn in other markets, including shrinkage, is about 7¢ per bushel; and as no proof was furnished by either party showing the market value of the corn in question, or cost of drying and shrinkage, we are forced to judge according to the usual charge in other markets, and therefore decide that the United Grain Co. shall settle for the car in question on the basis of 30¢ net delivered Buffalo, less the Vandalia tariff rate of 14½¢ per cwt., or 8½¢ per bushel, making a price of 21.88¢ per bushel f. o. b. Waynesville on 794 bu., 16 lbs., amounting to \$173.83.

COURT DECISIONS

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL. B., of the Chicago Bar.]

Validity of Seed Corn Contract.

A contract whereby A furnishes to B seed corn for the purpose of planting a certain acreage of corn, and whereby B agrees to deliver at the warehouse of A the entire portion of the crop which comes up to certain standards of quality set forth in the contract, at a certain price fixed therein, the Supreme Court of Nebraska holds (Robinson vs. Stricklin, 102 Northwestern Reporter, 479) is an executory contract (or one to be performed in the future), and that no title passes to that portion of the crop sold until separation and delivery, even though the contract recites that the title to the crop is in A and that he may enter and take the same if not delivered. Whether such contract is of any validity in Nebraska as a sale of things not in esse (being) the court says is a query.

Intention of One Party Does Not Make a Gambling Contract.

In an action of contract to recover the loss alleged to have been sustained by the plaintiffs in purchasing for the defendant, pursuant to his orders, two lots of May wheat of 5,000 bushels each, the defense was that the contracts were wagering contracts. The defendant offered to show that at the time of entering into the transactions he had no intention of receiving the wheat, but he did not offer to show that this was known to the plaintiffs. The Supreme Judicial Court of Massachusetts holds (Farnum and others vs. Whitman, 73 Northeastern Reporter, 473) that the evidence was rightly excluded. In determining the question by the rules of common law, because the transactions were before chapter 437 of the statute of 1890 was enacted, the court says that at common law, in order to render a contract void as a wagering contract, it must appear that both parties understood and agreed, expressly or impliedly, to the things which constituted it, as a matter of law, a wagering contract. This does not rest on grounds peculiar to wagering contracts. The unexpressed or uncommunicated intention of one party to a contract is not binding upon the other party to the contract. In order to be binding, the intention must be common to both.

Again, one of the plaintiffs testified that the defendant's orders were forwarded to a firm in Chicago, who were the plaintiffs' correspondents; and that in May the plaintiffs bought 10,000 bushels of wheat through that firm, who forwarded to them warehouse receipts for the same, and that the plaintiffs tendered these receipts to the defendant, who declined to accept them. The court thinks that the evidence was admissible on the question of the plaintiffs' readiness and ability to perform. So also was clearly competent the further testimony of the plaintiffs in rebuttal, that there was no agreement between themselves and the defendant that the contract should be settled by the payment of differences, the testimony relating directly to the substance of the issue on trial.

Corporation Bound by Contract of Manager for Services of Grain Solicitor.

The manager of the business of an incorporated grain company was given authority to employ the help necessary to properly conduct the business. He contracted for a party's services as a grain solicitor for the term of one year. The company discharged the solicitor before the expiration of this term, and he brought an action to recover the contract price for two months. The manager was not employed for a fixed period, and the company contended that he had no power to contract with the solicitor for one year.

In affirming a judgment in favor of the solicitor, the Supreme Court of Iowa says (Reupke vs. D. H. Stuhr & Son Grain Co., 102 Northwestern Reporter, 509) that the rule is that a manager of a corpora-

tion cannot engage employees for a long future period without express authority. There was no express limitation of the manager's authority in this case to employ for a definite time. He had the sole management of the business, and, so far as the record disclosed, he was the only one connected therewith authorized to make such contracts. It is, however, a fundamental rule that, where the principal confers upon his agent authority to transact business in reference to which there is a well-known usage or custom, it is the presumption of the law, in the absence of anything to indicate a contrary intent, that such authority was conferred in contemplation of the usage; and third persons who deal with the agent in good faith and in the exercise of reasonable prudence will be protected. There was ample evidence that it was the custom in the territory where this company operated to employ grain solicitors for a term of one year or longer.

Liability in Attachment of Corn After Assignment of Bill of Lading.

One is liable, in an action of trespass, the Supreme Court of Georgia holds (*Farmers' & Traders' National Bank vs. Allen-Holmes Company*, 49 *South-eastern Reporter*, 816), for causing an attachment against a debtor to be levied on a shipment of corn in the custody of a common carrier, the title to which is in a third person, or a bank, to whom a bill of lading covering the shipment has previously been duly assigned by such debtor; and if the property so levied on is brought to sale under the attachment proceedings, such third person will be entitled to recover damages for such unlawful seizure and sale.

In this case one firm ordered a carload of corn from another, to be paid for on delivery; and in compliance with the order, the latter firm shipped to the former a carload of corn, retaining the bill of lading issued therefor, which was attached to a sight draft, drawn in favor of the consignors, for the value of the corn. In due course of trade the plaintiff bank discounted this draft and acquired possession of the bill of lading attached thereto, which was pledged as security for the sum advanced. When the carload of corn arrived at its destination, the consignees declined to accept the same and had an attachment issued against the consignors for an alleged indebtedness levied by the sheriff on the car of corn, which was subsequently sold by him by virtue of said attachment.

By reason of the transfer and assignment of the bill of lading as before stated, the corn, the court says, was the property of the bank. The consignors had parted with title thereto when they transferred the bill of lading to the bank. The bill of lading issued by the carrier was assignable, and passed title to the corn into the bank. After the assignment of this bill of lading, the bank had constructive possession of the carload of corn which had been delivered to the carrier for transportation. Under the very terms of the contract of shipment, the carrier obligated itself to transport the car and hold it subject to the orders of the holder of the bill of lading, whether such holder was the party to whom the bill of lading was originally issued or his assignee. So, at the time the car arrived at its destination, the railroad company's possession of the corn was that of the bank, and as bailee the company would have been liable to the bank if it had delivered the corn to the consignee without a due surrender to it of the bill of lading held by the bank.

While the corn was thus in the constructive possession of the bank, though in the physical custody of the carrier, the consignees caused an attachment against the consignors to be levied on it, and it was seized and sold under the attachment proceedings. This unlawful invasion of the bank's right of property gave it a cause of action, and if as alleged the property was wholly lost because of the illegal levy and sale, the bank would be entitled to recover at least the actual value of the corn.

CLEANLINESS

Is a subject which will never be overdone. It has a bearing upon a successful business and upon keeping that business from destruction. It has a greater bearing upon securing good fire insurance than any other factor. No matter what the virtues of your elevator are, let it be found dirty at any time the insurance company representatives call and four times out of five they will advise to not renew or to reduce the policy.

An explanation can be given regarding the thin layer of dust resulting from cleaning and loading, but insurance men are not satisfied with the accumulation upon beams, braces, in corners, and known to be habitual by the dust-laden cobwebs which are associated with such conditions. Cleanliness in an elevator will cover a multitude of other sins in the eyes of insurance men.—McCotter.

FIRES--CASUALTIES

The premises of S. S. Kerr, a grain dealer at Nashville, Tenn., were damaged by fire recently.

During a severe rain and wind storm on March 13 a grain warehouse near Willows, Cal., was blown down.

The Wiggett & Empey Co.'s warehouse at Coeur d'Alene, Idaho, was slightly damaged by fire recently.

The recent fire loss of the Berne Grain and Hay Co. at Berne, Ind., has been adjusted at \$1,500, the amount of insurance carried.

Theodore Krein, a grain man of Minonk, Ill., was killed recently by being caught between the side of a grain car and the roof of a coal shed.

The grain elevator at Mingo, Ohio, owned by Mrs. Elizabeth Stevenson, was burned on March 25. There was no grain in the house at the time of the fire.

H. O. Barber & Son's elevator at Denton, Neb., was badly damaged by fire on the evening of March 27. A spark from a passing engine is supposed to have caused the blaze.

The grain elevator at Kinmundy, Ill., owned by T. M. Smith and containing several thousand bushels of oats, was burned on March 28. The loss is partially covered by insurance.

H. P. Larson, manager of the Aneta Farmers' Elevator Co. at Aneta, N. D., caught his right arm in the elevator cups while at work in house on March 11, and suffered a painful injury.

A night lamp in the office of J. S. Nason & Co., dealers in grain, hay, feed, etc., at Westboro, Mass., set fire to the woodwork on the evening of April 4. The blaze was extinguished before much damage resulted.

The building in Allston (Boston), Mass., occupied by the Allston Hay and Grain Co., was destroyed by fire, together with its contents of hay and grain, on the night of April 4. The total loss is \$4,000.

What might have been a serious fire started in the top of the Security Elevator Co.'s house at Young America, Minn., on the morning of March 22. It was discovered and extinguished before it had gained much headway.

The elevators at Louisburg, Minn., owned by the Inter-State, the McCaull & Webster and the Northwestern Elevator companies were badly damaged by a cyclone which swept over that town on the night of March 27. The damage to the three elevators is estimated at \$3,000.

While loading at New Orleans, La., on March 30 the Austrian steamship *Arimatea* was discovered to be on fire and had to be beached to save her from going under. Her cargo included about 150,000 bushels of corn, which was damaged by water to the extent of between \$15,000 and \$20,000.

The premises of Torrence, Vary & Co., grain dealers, at Lynn, Mass., were damaged by fire and water on the evening of March 14. The fire started in a vaudeville theater and was caused by the explosion of a moving picture machine. Torrence, Vary & Co.'s loss is estimated at \$4,000.

Damage to the extent of about \$8,000 was caused in the factory of Lewis Elmer & Sons at Baltimore, Md., on March 21, by fire supposed to have been started by spontaneous combustion. The blaze broke out in the grain bins. The loss is reported covered by insurance. The firm manufactures compressed yeast, vinegar, etc.

Fire of supposed incendiary origin totally destroyed the Farmers' Exchange Elevator on the N. P. right-of-way at Little Falls, Minn., on March 8. About 1,100 bushels of wheat were stored in the building. The loss is \$3,000, with \$600 insurance on the building and \$2,000 on its contents. It will be rebuilt, but not at once.

The Northwestern Elevator Co.'s elevator at Auburn, N. D., was burned on March 18. The fire broke out at about 7 o'clock a. m., and is supposed to have started from the office stove. About 4,500 bushels of wheat, 1,500 bushels of flax and 500 bushels of barley were burned. M. W. Hostetter's elevator nearby caught fire several times from flying sparks, but was saved.

The large grain elevator at Irwin, Ohio, owned by R. B. Gordon & Son was destroyed by fire on the night of March 28, causing a loss estimated at \$12,000. Some property owned by the Big Four Railroad and a carload of corn on the track were also burned. The town has no fire protection, but a bucket brigade saved the Big Four station, near the elevator. The fire is thought to have been started by a spark from a passing locomotive falling upon the roof of the elevator. There was

\$2,000 insurance on the grain stored in the elevator and \$5,000 on the building itself.

At Dickinson, N. D., the annex to the Lyon Elevator Co.'s house was damaged by fire of incendiary origin on the night of March 24. The blaze was started under the elevator driveway and soon spread to the annex where two carloads of flour were stored. The flames did not get inside the elevator building proper. The loss is estimated at nearly \$3,000, covered by insurance.

Fire at the plant of the Ryman Elevator Co. on the east bank of the Cumberland River at Nashville, Tenn., on the night of March 31, resulted in damage estimated at \$25,000. The four-story frame receiving building, 2,000 sacks of corn, 1,800 bales of hay, a quantity of merchandise and a tow boat were destroyed. The fire is supposed to have originated from locomotive sparks. The loss is partly covered by insurance.

One end of the warehouse at Jamestown, N. Y., owned by the Trantum Grain and Feed Co., collapsed on the night of March 25, resulting in damage to the amount of about \$1,000. The collapse was caused by the giving way of the brick foundation under the weight of a large quantity of sacked bran. The building contained about 1,000 tons of bran and the greater part of this was saved. The building will be repaired at once.

The 50,000-bushel elevator of the St. Anthony & Dakota Elevator Co. at St. Thomas, N. D., was destroyed by fire, together with 3,000 bushels of grain, at an early hour on the morning of April 1. The fire which destroyed the elevator was the second that occurred in the building on the same night. The first fire broke out at 7:30 o'clock p. m. It was discovered and supposedly extinguished before much damage resulted. At about one o'clock a. m., the elevator was again found to be on fire and this time it was completely destroyed. Two other near-by elevators were saved with difficulty. The origin of the fire is not known. It is said that the company will rebuild.

One of the elevators of the Sparks Milling Co. at Alton, Ill., was destroyed by fire on March 23. The house contained about 55,000 bushels of wheat, the greater part of which was ruined either by fire or water. The fire broke out at 2:40 o'clock a. m., starting in the top of the elevator building. The cause is not definitely known, but it is thought to have been a spark from a passing locomotive or from friction of a pulley in the cupola. The burned elevator was a frame structure, metal clad, and had a storage capacity of 80,000 bushels. A new steel storage tank nearby, which was filled with wheat, and the company's mill building were not damaged. The total loss is estimated at about \$50,000, with \$37,500 insurance on stock and \$4,500 on the building. The elevator will be rebuilt as soon as possible.

The Williams-Wilson Grain Co.'s elevator at Otawa, Kan., known as the Pacific Elevator, was totally destroyed by fire, together with a large quantity of flaxseed and other grain, on the night of March 27. The origin of the fire is uncertain, but it is thought to have been caused by lightning, as a severe electric storm was in progress when the fire was discovered. For a time it looked as if the company's warehouse near the elevator would be burned also, but it was saved by a shifting of the wind and the heavy rain falling at the time. The burned elevator was a metal-clad structure and one of the largest in that section of the state. It was valued at \$8,000 and its contents at \$4,000. The property was insured for \$5,500 in a millers' mutual insurance company. The elevator will be rebuilt as soon as possible on a much larger scale than before.

The old St. Thomas Roller Mills at St. Thomas, N. D., which had been used during the winter by A. L. and T. A. Miller as an elevator, burned on the morning of March 13. A gasoline engine furnished the power and a small oil stove was used to keep the water for the engine from freezing. It is supposed that this stove exploded and caused the fire. The building had not been used as a mill for some time. When it was leased by the Miller brothers it was remodeled and a line of grain cleaning and handling machinery put in. Stored in the structure at the time of the fire were about 3,000 bushels of wheat and 2,000 bushels of barley which was intended for seed. Of this grain about 2,000 bushels, saved from the ruins, will be fit for feed. The building was owned by E. T. Thompson and his loss is estimated at \$1,500, with no insurance. Miller Bros.' loss is \$3,000, also with no insurance.

Buffalo grain scoopers will receive the same pay as last year, with the exception of a slight increase for Sunday work.

A number of independent grain buyers of Walla Walla, Wash., are planning to take up the matter of the O. R. & N. company's discriminations in freight rates before the Interstate Commerce Commission.

OBITUARY

J. A. Payne, of the grain firm of Hock, Payne & Co., Rockport, Ind., is dead.

Charles Ferver, a wholesale grain merchant of New Castle, Pa., died recently at his home in that city at the age of 44 years. He leaves a widow and five children.

Robert Matson, a grain dealer of Rugby, Ind., died at that place on March 13, aged nearly 60 years. He had been in ill health for several years. Death was due to consumption.

George W. Knowles, produce handler of Lyons, N. Y., died on April 4, aged 69 years. He was a member of the banking firm of H. P. Knowles & Co. of Palmyra, N. Y., and owned the grain warehouse on Water Street.

Cyrus D. Wilbern, manager of the A. W. Harris Grain Co.'s elevator at Sibley, Iowa, was killed at that place recently by a Rock Island train. He stepped from one track, on which a train was approaching, on to a sidetrack and was struck by another train.

Josiah E. Sherry, president of the Sherry-Bacon Grain Co. of St. Louis, Mo., and for many years identified with the grain interests of that city, died at his residence on March 23. Death was due to pneumonia and occurred after an illness of about ten weeks. Mr. Sherry was 61 years old and leaves a wife, one son and three daughters.

Samuel R. Smith, a well-known feed and grain dealer of Allegheny, Pa., died at his home in that city on March 21. The deceased was born in Allegheny in 1833 and was at one time a dealer in horses. Prior to that he was engaged in the coal trade. Mr. Smith was a director of the Federal Savings Bank and the Crystal Ice Company. His wife, three sons and two daughters survive him.

Ellis D. Adams, secretary and treasurer of Comstock, Ferre & Co. of Wethersfield, Conn., died on March 10. He had been ill and absent from business about one month. Death was caused by acute Bright's disease. Mr. Adams was well known in the seed trade and had been connected with the above seed company for nearly thirty-five years. He was born in Wethersfield and resided there all his life. His wife and two children survive him.

James I. Reynolds, president of the Kansas City Grain and Seed Co. of Kansas City, Mo., died at his home in that city on March 13 of Bright's disease. Mr. Reynolds became a resident of Kansas City in 1872 and soon afterward engaged in the grain, feed and seed business. He later organized the company of which he was president at the time of his death. He leaves a widow, three sons and a daughter. The Kansas City Board of Trade, at its session of March 14, passed appropriate resolutions on his death.

August Polinski, for nearly ten years agent for the State Elevator Co. at Lester Prairie, Minn., died at his home in this village recently from a stroke of apoplexy. Mr. Polinski has been in ill health for several months and resigned his position for that reason about three months before his death. The deceased was born in Germany in 1859, being in his 46th year at the time of his death. He served his time in the German army, and in 1886 emigrated to America. He spent about a year at Eau Claire, Wis., and then located at Lester Prairie, where he had since resided. A widow and six children survive him.

Charles Dunwoody, former president of the Philadelphia Commercial Exchange, and a member of the flour and grain firm of Dunwoody & Co. of Philadelphia, died on March 13, on a train while en route to Philadelphia from his home in Narberth, Pa. Death is supposed to have been due to an attack of heart disease. Mr. Dunwoody left home on the morning of his death apparently in the best of health. When he boarded the train he secured a seat by himself and continued to occupy it alone until the city was reached. When the train pulled into the station and everybody had filed out a trainman noticed that Mr. Dunwoody remained seated. He had slid down a little in his seat, and his head was sunk on his breast, but the trainman thought he was asleep until he went to awaken him, when he found that he was dead. The deceased was 60 years of age and was born on the Dunwoody homestead at Westtown, Chester County, Pa., coming of Quaker stock. Early in life he entered the grain business, being employed by his uncle, Ezekiel Dunwoody. He soon became a partner and finally head of the firm. Thirty-five years ago he became a member of the Commercial Exchange, then known as the Corn Exchange. He was elected president in 1900 and continued in that office until 1904, when he declined a renomination. When the controversy over differential rates on grain arose two years

ago, Mr. Dunwoody took an active part in the fight. He was an authority on the subject. He was a member of the transportation and finance committees of the Exchange. He was a brother of William H. and John Dunwoody, of the Washburn-Crosby Co. of Minneapolis, and his firm was the Eastern representative of the Washburn-Crosby Mills. He leaves an estate valued at over \$100,000. His wife and three brothers survive him and are his only heirs. His only son died at the age of ten years.

Captain William B. Dean, a retired grain commission merchant, died at his home in St. Louis, Mo., on March 9. For many years he was a member of the grain and commission firm of Block, Dean & Co. He retired from business in 1899 and his partner, David Block, died two years later. Captain Dean was born in Millford, Mass., December 25, 1855. He lived there until the breaking out of the Civil War, when he enlisted in the Army of the Potomac. He served through the war, attaining the rank of captain. At the close of the war he located in St. Louis and engaged in business. The deceased was a member of the military order of the Loyal Legion, the Grand Army of the Republic and a Mason. His wife, to whom he was married in 1871, and one son, survive him.

George Clarke Walker, a retired Chicago capitalist and Board of Trade man, died suddenly at his residence, 228 Michigan Avenue, this city, on April 12, of heart disease. He was 70 years old. Mr. Walker was born in the state of New York and came to Chicago when he was 11 years old. Later he engaged in the grain business with his father under the firm name of Walker & Sons. He retired ten years ago. He was a charter member of the Chicago Board of Trade and a member of the first commission that laid out the plan of Chicago parks. He was a trustee of the University of Chicago. Several years ago he gave to that institution the museum which bears his name. In earlier years he financed one of the expeditions of Robert Kennicott, the naturalist, who made scientific researches in the North, and with Mr. Kennicott founded the Academy of Sciences, which now has headquarters in the Laffin Memorial Building in Lincoln Park. Mr. Walker was a member of the Chicago Commercial, Lake Geneva Country, Calumet and Chicago Golf clubs. He leaves a widow.

NEW ARRANGEMENTS FOR HANDLING GRAIN AT NEW YORK.

An agreement between the New York Produce Exchange and the eight trunk lines from the lakes and the West reaching New York Harbor, relating to the inspection, grading, consolidation and delivery of grain arriving by rail at the port of New York, which had been pending for a long time, becomes operative on April 1. The carriers signing the agreement are the New York Central, West Shore, Erie, Pennsylvania, Lackawanna, Lehigh Valley, N. Y., O. & W., and B. & O. Railroad companies. The agreement creates a complete warehousing and grain-handling system, under joint management, the Produce Exchange providing and paying the inspection and weighing staffs, and the signatory companies furnishing safe storage for grain and guaranteeing its prompt delivery in merchantable condition upon delivery of their warehouse receipts.

The specifications provide that, "The railroad companies may put together in elevators, warehouses, boats or barges, provided by themselves for the purpose, grain of the same kind and grade, without regard to its ownership, after the same has been inspected and weighed in accordance with this agreement, but nothing contained therein shall be construed as depriving receivers of grain of the right of preserving the identity of ex-lake grain if they so elect, nor as depriving shippers of the right of preserving the identity of all-rail grain consigned to this market, if they shall so elect, subject only to such uniform conditions as may be made by the railroad companies parties hereto for that purpose."

All differences growing out of this agreement "shall be settled by a private arbitration committee consisting of three persons, one of whom shall be selected by the president of the New York Produce Exchange, subject to the approval of the committee on grain, one by the railroad companies, or the company with which the controversy may arise, and these two to select a third; and a decision of a majority of such arbitration committee shall be final as to the case presented."

By Sec. VI the Produce Exchange agrees to maintain a grain inspection and a grain weighing department, the records of which are to be kept in the usual manner of such utilities, in accordance with the rules embodied in the Section itself.

By Sec. VII the signatory companies agree to a set of rules embodied in the Section, governing the

issuance of warehouse receipts for graded grain in lots of 5,000 bushels, the receipts being in the usual form.

The railroad company shall, however, have the right to withhold such certificates until bills of lading covering the property have been surrendered, and the freight (computed upon the track or elevator scale weights, as verified by the inspector, subject, however, to carload minimum weight per tariff of originating carrier, if the same, together with the actual weight of the grain, is shown on the bill of lading) and all accrued charges upon the grain represented by such certificates shall have been paid.

Rule 2.—All bulk grain, including that in bond, arriving in cars at the terminus of any of the railroads parties hereto, and delivered under the privileges granted in the agreement, may be inspected, sampled or graded by the New York Produce Exchange.

Rule 4.—In cases where grain is consigned "not to be graded" or for track delivery, and is held in cars and subsequently ordered for other track delivery or to boats or to elevators, or for delivery by car-float or lighter, the railroad companies under Rule 4 shall collect not less than three dollars per car (plus car service if incurred under this rule) for reconsignment privilege to cover the cost of extra switching, etc., involved, provided such delivery order is not filed with the carrier within twenty-four hours (Sundays and holidays excepted) after the car ticket has been lodged with the grain inspector at point of inspection. Car tickets for all such grain arriving after 4 p. m. and before 8 a. m. of day following shall be lodged with the grain inspector by 8 a. m.; on all such grain arriving after 8 a. m. and before 4 p. m., car tickets shall be lodged with grain inspector by 4 p. m.

All cars not ordered within seventy-two hours may be put afloat in grain boats direct or through elevators.

All grain held on track awaiting orders from consignee, or for unloading, will be subject to a car service charge of \$1 per car per day, or fraction thereof, for detention of car and use of tracks, if not ordered or unloaded at the expiration of seventy-two hours after 12 noon of the day of arrival.

All time consumed in awaiting orders from consignees will be deducted from the free time allowed.

Cars shall be considered as having arrived and consignees will be notified when cars shall have arrived in the holding or delivering yards of the terminal lines.

In all cases where no notation as to grading is made upon waybills it will be understood that the grain is to be graded and treated accordingly.

Rule 5.—In case grain is ordered afloat on arrival consignees shall be allowed to hold the same in boats four days (exclusive of Sundays and legal holidays), including the dates of the certificates, free of expense. After that time demurrage shall accrue at one-sixteenth of one cent per bushel per day, or part thereof, until the grain is discharged, but the demurrage charge on any one order for any one kind or grade of grain shall not be less than \$6 per day or part thereof. In computing the number of days consumed in discharging grain from boats an additional day shall be counted for all boats discharged after 7 o'clock p. m.

Rule 6.—Upon surrender of certificates for grain afloat to the railroad company issuing the same with an order directing delivery of not less than 4,000 bushels of the grain, the said company shall promptly deliver the grade and quantity of the grain specified therein at any customary place of delivery in the port of New York, as directed, subject to extra towing charges when destined beyond established free lighterage limits.

On all orders for less than 4,000 bushels of one kind or grade of grain a towing charge of not less than \$6 will be made, subject to extra towing charges when destined beyond established free lighterage limits.

Rule 7.—Orders for the delivery of grain will not be received after 1 o'clock p. m. on Saturdays, and 5 o'clock p. m. on other working days.

Rule 8.—Claims for boat shortages on flaxseed, malt, buckwheat, peas, kaffir corn and unmerchantable grain, whether all-rail or ex-lake, will not be allowed.

Rule 9.—Railroad companies shall be liable, as common carriers, for the safety of grain represented by their certificates until delivered in accordance with these rules, but they shall have the right to terminate their liability in the manner provided in Rule 13.

Rule 10.—If any certificate of grain afloat be not surrendered to the railroad company issuing the same within five days from and including the date thereof, with an order directing the delivery of the grain, the said company may thereafter give not less than 48 hours' notice on the bulletin of the New York Produce Exchange of their intention to store in grain warehouses the grain represented by such certificate; and if such certificate be not sur-

rendered within the time specified in such notice, with an order directing some other disposition of the property, said company may thereafter so store the grain in a warehouse designated "Regular" by the Produce Exchange at the expense and risk of the owner thereof. Upon the surrender of the certificate for grain so stored, and the payment of the accrued charges, the railroad company shall furnish a customary warehouse receipt in exchange therefor, and thereupon the liability of said company under such guaranteed certificate shall terminate.

Rule 11.—The railroad companies, parties hereto, in charge of grain held afloat under these rules, shall exercise due diligence respecting the condition of such grain, and give notice to the inspector-in-chief, without unnecessary delay, of any change discovered by them in the condition of grain in their charge. Also, give to the inspector-in-chief or his deputies, at all times, every reasonable facility for the thorough examination of grain, whether any report of its condition has been made by them or not. Any railroad company receiving notice from the inspector-in-chief that grain held by said company is out of condition shall, without unnecessary delay, certify thereon the certificates outstanding upon which such grain will be delivered, which certificates shall be those of the oldest numbers and dates then in circulation or uncanceled, also the quantity to be delivered under such certificates, and cause such notice to be posted upon the bulletin of the New York Produce Exchange, and thereafter the certificates so posted shall cease to be a valid delivery of graded grain under these rules, as between sellers and buyers, except on contract wheat, which is provided for in Rule 5, Section VII, of the "Rules of the Grain Trade." If all the certificates of the grade out of condition should have been surrendered, or not enough outstanding to cover the quantity out of condition, then the parties having surrendered the certificates on which such grain has been or shall be tendered, shall accept the same as good delivery on such certificates, after deducting the quantity covered by such posted certificates, if any.

Rule 12.—When grain out of condition is posted on the bulletin board of the New York Produce Exchange prior to 2 p. m., if afloat, consignees or owner shall have the two following work days free, provided the total number of lay days does not exceed four, and thereafter demurrage shall accrue at the rate of one-quarter ($\frac{1}{4}$) of a cent per bushel per day, or part of a day, ending at 7 p. m.; if posted after 2 p. m., consignees or owner shall be entitled to one work day more.

Rule 13.—Grain in lots of less than 4,000 bushels and unmerchantable grain will be subject to the same charges as certificate grain, except that the consignees will be allowed to hold such grain in boats free of expense only three days, exclusive of Sundays and legal holidays, instead of four days. The railroad companies will furnish samples of grain inspected on arrival, as unmerchantable, before noon of the day such grain is ready for delivery.

The rules governing charges for the service rendered under this agreement are found in Section VIII and are substantially as follows:

Rule 1.—Consignees, electing to have grain (received on railroad bills of lading, subject to free lighterage) remain in elevator on storage, subject to these railroad elevator rules and rates of storage, shall receive elevator receipts for same, and such grain will be granted free lighterage on delivery from elevator; provided, however, notice to store be given in writing before such grain is received in elevator. The right is reserved to store only such kind and grade of grain as each elevator from time to time elects. After such grain is delivered from the elevator it will be allowed (exclusive of the day of ordering, Sundays and legal holidays) three days, including that of its arrival (prior to 6 p. m.) at a specified point of destination, free of charges; after that time demurrage shall accrue at one-sixteenth of one cent per hushel per day, or part thereof, until the grain is discharged, but the demurrage charge on any one order for any one kind or grade of grain shall not be less than \$6 per day or part thereof. In computing the number of days consumed in discharging grain from boats an additional day shall be counted for all boats discharged after 7 p. m.

Upon delivery of warehouse receipts, the railroad company will deliver the grain indicated at any customary place of delivery at the port of New York subject to towing charges when destined beyond free lighterage limits; grain ordered in storage by consignees is subject to owner's risk of fire inspection.

Rule 6.—All grain in store will be subject to delivery afloat at the option of the railroad companies. When grain is to be delivered afloat, in the exercise of this option, warehouse receipt numbers covering the grain to be floated will be posted on the bulletin board of the New York Produce Exchange before 2 p. m. These receipts will be the oldest receipts outstanding of such grain. If such

grain is ordered into a "regular" grain warehouse before 5 p. m. of the first day after posting, the expense of elevation from the hoat into said warehouse will be paid by the railroad company posting the grain, and the accrued storage on the "final period" (if less than a full period) will be waived. Unless such grain is ordered by 5 p. m. of the first day after posting, it will be subject to a demurrage charge of one-eighth ($\frac{1}{8}$) cent per hushel per day until ordered, with a minimum charge of \$6 per day or part thereof.

Rule 7.—Receiving, weighing and storing for the first ten (10) days or any part thereof, one-fourth ($\frac{1}{4}$) cent per bushel, and one-eighth ($\frac{1}{8}$) cent per bushel for all subsequent five (5) days or parts of same, as long as such grain remains in store and in good order. Ten days' free storage will be allowed on grain exported, if ordered on storage before arrival, provided the grain is sent direct from railroad elevator or cars to vessel for export. Such grain to be handled direct from boat to vessel through floating elevator, or direct to vessel from railroad elevator. If grain is floated on arrival no free storage will be allowed.

All grain held in storage will be subject to changes in charges on ten days' notice posted on the bulletin board of the Produce Exchange.

Rule 8.—Grain delivered to ocean vessels direct from railroad elevator, one-half ($\frac{1}{2}$) cent per bushel.

Rule 9.—Screening and blowing one-eighth ($\frac{1}{8}$) of a cent per hushel. On all grain blown and screened to lighters for harbor delivery, shortage in excess of one bushel per thousand bushels will not be guaranteed.

Mixing grain, one-eighth ($\frac{1}{8}$) of a cent per bushel, to be charged upon each bushel forming the mixture.

Transferring grain while in store, one-eighth ($\frac{1}{8}$) of a cent per bushel.

Clipping oats, one-half ($\frac{1}{2}$) cent per bushel.

Vessels or canal boats loading at the railroad elevators are to pay usual charges for shoveling and trimming.

Delivery in bags, including sewing or tying, with specific weight in each bag, one and one-half ($1\frac{1}{2}$) cents per bushel. Delivery in bags, including sewing or tying, without specific weight in each bag, one (1) cent per bushel.

Rule 10.—All grain becoming heated or cut of condition while in store will be posted on the bulletin board of New York Produce Exchange prior to 2 p. m., and on all such grain not ordered by 5 p. m. of the second day after posting, an additional charge shall accrue of one-quarter ($\frac{1}{4}$) of a cent per bushel per day, or part thereof, until said grain shall be ordered. Regular lay days will be allowed on posted grain delivered from elevator. The right is reserved to store all posted grain afloat after the lay days have expired. All posted grain quantity will be guaranteed.

PERSONAL

Charles Peterson has taken charge of an elevator at New Germany, Minn.

S. Sorensen is now in charge of Babcock & Hopkins' elevator at Roselawn, Ind.

Carl Kirkeby has been appointed agent for the St. Anthony & Dakota Elevator Co. at Souris, N. D.

R. J. Rezab of Ellendale, Minn., has accepted a position with the Western Elevator Co. at Winona, Minn.

W. J. Volic is to succeed W. Maller as wheat buyer for the S. Y. Hyde Elevator Co. at Lonsdale, Minn.

Edward Shivadecker has succeeded Peter Smyer as manager of J. & J. Lease's elevator in West Sonora, Ohio.

Fred Dakin of Oakland, Ohio, has taken a position with H. H. Hollingsworth, a grain dealer at Kingman, Ohio.

L. Spelts, of the Spelts Grain Co., David City, Neb., was elected mayor of that municipality at the late election.

Emil Tornell has been appointed wheat buyer for the Peavey Elevator Co. at Warren, Minn., to succeed Mr. Morkassel.

W. Y. Brown has removed from Dakota, Ill., to Ridott, this state, and taken charge of the elevator owned by Hillmer & Co.

Carl Spelman of Arcola, Ill., is now in charge of the National Elevator at Chesterville, Ill., succeeding H. R. Alexander.

George Sale and Miss Elsie Beard of Warren, Ind., were united in marriage at that place on March 22 and immediately left for Colorado on their wedding trip. Mr. Sale is a member of the grain firm of Studebaker, Sale & Co. of Warren,

Ind., which owns and operates elevators at several Northern Indiana points.

George G. Omerly, of the Philadelphia grain exporting firm of Hancock & Co., has been elected a director of the Maritime Exchange.

L. O. Bundy has removed his family from Madrid, Iowa, to Neola, that state, where he has taken charge of the Neola Elevator Co.'s plant.

C. H. Halverson has removed from Vernon Center, Minn., to Pender, Neb., and will have charge of the American Grain Co.'s business at that point.

S. H. Cox, who has had charge of Richard Cox's grain business at Galva, Ill., for several months, has removed to Kansas and will be succeeded by G. O. Berg.

J. O. Eckerson, for the past year manager for the Thorpe Elevator Co. at Borup, Minn., has resigned on account of ill health and removed to Sioux City, Iowa.

James Johnson, huyer for the Axtell Grain and Elevator Company at Axtell, Neb., was retained in that position for another year at the last meeting of the board of directors.

T. F. Rhodes has given up his position as manager of the Stewart Elevator at Delano, Minn., and returned to his home at Garden City, S. D. He is succeeded at Delano by Walter Mara.

Arthur Sorenson, grain buyer for the W. W. Cargill Co. at Grand Meadow, Minn., has closed the elevator at that place and removed to Houston, Minn., where he has been appointed to a similar position with the same company.

Charles Mather of Pawnee County, Kan., has taken charge of the Baker-Crowell Co.'s new elevator in Stockton, Kan. The elevator is a modern structure, equipped with the latest machinery, and has a storage capacity of 20,000 bushels.

C. N. Edwards, who resigned as treasurer and hookkeeper for the Alliance Elevator and Milling Co. of Sherburn, Minn., several months ago and went to Colorado for the benefit of his health, has returned to Sherburn much improved in health.

S. W. Flowers, a veteran grain man and president of the S. W. Flowers Seed Co. of Toledo, Ohio, is reported dangerously ill at his home in that city. He has been ill for several weeks, suffering from a complication of diseases induced by his advanced age, 72 years.

Jerry Keefe of Morton, Minn., who has been buying wheat at Jeffers, Minn., for the Peavey Elevator Co., has been appointed to a similar position for the same concern at Mountain Lake, Minn. The new appointment is a promotion and carries with it an increase in salary.

John F. Beatty of Blooming Prairie, Minn., has taken the position of grain buyer for the Hunting Elevator Co. at Lansing, Minn., succeeding O. C. La Bar. Mr. Beatty was in charge of the company's house at Blooming Prairie until it was bought by a farmers' organization.

C. B. Horen, general agent for the Tacoma (Wash.) Grain Co., has transferred his headquarters from Pullman, Wash., to Spokane. Mr. Horen has been general agent for the company's grain business on the Palouse & Lewiston and Clearwater branches of the Northern Pacific for several years, but will have charge of the Central Washington branch as well in the future.

Imports of flaxseed for the month of February amounted to 731 bushels, valued at \$1,030, as compared with 1,106 bushels, valued at \$1,591, for the preceding February. The total imports for the eight months ending with February aggregated 89,670 bushels, valued at \$78,910, as compared with 6,420 bushels, valued at \$8,224, for the eight months ending with the preceding February.

OUR CALLERS

[We have received calls from the following gentlemen prominently connected with the grain and elevator interests during the month.]

T. A. Bryant, Lincoln, Neb.
G. B. Paterson, Burdett, N. Y.
S. E. Knedler, Prairie View, Ill.
A. H. Munson, of Munson Bros., Utica, N. Y.
R. M. Meisel, of Meisel Mfg. Co., Port Huron, Mich.
J. F. Younglove, of Younglove Construction Co., Mason City, Iowa.
F. E. Lehman, representing Nordyke & Marmon Co., Indianapolis, Ind.
Jas. J. Pollard, Toledo, Ohio, representing Sprout, Waldron & Co., Muncy, Pa.
J. E. Gambrill, Green Camp, Ohio, representing Sprout, Waldron & Co., Muncy, Pa.

HAY AND STRAW

Good timothy hay is reported scarce on the Baltimore market.

The Mealalfa Co.'s new alfalfa mill at Stockton, Cal., is now in full operation.

A. Eastman has built a large hay and grain warehouse at Fort Collins, Colo.

The burning of the F. L. Sublett Hay Co.'s warehouse at Harrisonburg, Va., on April 8, is reported.

A new alfalfa mill will be built at Almena, Kan., by an extensive shipper of alfalfa hay of that place.

Harvesting of alfalfa is now in progress around Sherman, Texas, commencing two weeks earlier than ever before.

C. W. Hart has sold his hay and straw business at Hicksville, Ohio, to Hart & Longworth, and removed to Uniontown, Pa.

Squire, Clearwater & Co. have sold their hay and feed business in Green Ridge (Scranton), Pa., to Frease & Son, of that city.

During 1904 there were 150 cars of alfalfa seed, valued at \$3,000, shipped out of Utah, and still more is looked for this year.

Hisey & Clark, dealers in hay, straw and produce at Yale, Mich., have dissolved partnership. Herbert E. Clark will continue the business alone.

The total receipts of hay on the Baltimore market for the month of March were 5,533 tons, as against 5,255 tons for the corresponding period last year.

The committee on hay and straw quotations of the Baltimore Chamber of Commerce for the month of April are: J. M. Frisch, J. A. Loane and R. H. Diggs.

E. L. Lothrop & Son have sold their hay and grain business at West Bridgewater, Mass., to parties from Newton Centre, that state. Possession was given April 1.

John H. Irvin, of the late firm of Irvin & Bauernschmidt, hay merchants of Baltimore, has taken charge of the hay department of S. C. Woolman & Co. at Philadelphia, Pa.

Frank Newcomer has sold his interest in the business of George Haumesser & Co., dealers in hay and implements, at Wauseon, Ohio, to his partner, George Haumesser, who will continue it alone.

The W. J. Armstrong Co. of Milwaukee is about to extend its hay business and will open an office in Chicago, with H. T. McClure in charge. Mr. McClure is an experienced hay man and has been connected with several leading firms.

The Western Maryland Railroad Co. has awarded the contract for the erection of a hay shed at Baltimore, Md. It will be located at the Hillen Yard, and will be two stories high and 42x120 feet in dimensions. The foundation will be of brick and stone and the walls will be of corrugated iron.

Alfalfa has been successfully grown on the Troy Farm, near Tappan, N. D., and farmers of North Dakota are encouraged to believe that it can be made a success in that state. Two other farmers of that section cut alfalfa twice last season and the yield was four and one-half tons an acre in the two cuttings.

The city council of Covington, Ky., has passed an ordinance licensing certain lines of business where wagons are used for delivery of stock. Hay, grain and feed dealers will be required to pay \$5, \$10 and \$15 a year respectively for one, two and three horse wagons. The money collected from the licenses will be applied to the fire fund.

Damage to the amount of \$4,000 was done by fire in Otto Weiss' alfalfa mill at Wichita, Kan., on the morning of March 17. The fire started in a meal bin in the northeast corner of the establishment and had gained considerable headway when it was discovered. The fire was a difficult one to handle on account of the dense smoke from the burning meal. The fire destroyed considerable machinery, the most damage being to bins, elevators and chutes. The damage to the building, which is a one-story brick structure, was mainly in the roof. Though the flames were confined to a small space a great deal of damage was done to the stock by smoke and water. Mr. Weiss carried between \$3,000 and \$4,000 worth of stock of his own, which consisted of poultry supplies, alfalfa meal, corn and oats. About \$4,000 worth of flour belonging to the Halstead and Newton mills, for which Mr. Weiss is agent, was more or less damaged. All this will have to be resacked. The estimated damage is \$4,000. The cause of the

fire is not known. Insurance to the amount of \$3,000 was carried on the building and \$7,000 on the stock and machinery.

The appointment of an official hay inspector, to be an employee of the regular grain inspection department of the Exchange, was recommended by the Joint Hay Committee in its recent report to the board of directors of the Philadelphia Commercial Exchange.

James T. Clendenin, of the firm of Charles England & Co., hay and grain commission merchants of Baltimore, Md., has demonstrated that alfalfa hay can be successfully grown in that state. He has been experimenting with it on his farm in Cecil County, Md., for about a year, following the instructions of the U. S. Department of Agriculture in the cultivation of the plant.

The semi-annual meeting of the Utah Hay and Grain Dealers' Association was held at Salt Lake City on April 4. Officers were elected as follows: Thomas D. Pitt, president; Robert M. Holt, first vice-president; Delbert B. Hughes of Ogden, second vice-president; B. R. Becker of Mt. Pleasant, third vice-president; C. L. Miller, treasurer; Daniel H. Nalder, secretary; R. E. Miller, A. H. Vogeler and J. J. Hubball, executive board.

The Pittsburg Grain and Hay Reporter in a late issue says: "The demand for hay on our market at present is confined almost entirely to timothy, while the call for clover and clover mixed is exceedingly limited, and then only for high-class stock. There is quite an accumulation in the yards of hay of these descriptions that is impossible to place at anything like reasonable figures. The receipts of both wheat and oat straw have been quite heavy. In fact, more has been coming forward than can be sold at satisfactory prices."

Grain and seed merchants of Los Angeles, Cal., say that their sales indicate a great increase in the acreage being planted to alfalfa. Although alfalfa seed is much higher than the average price, the farmers have been buying freely ever since the first rains of the season, and as the rainfall continued the sales have increased. A local seedman estimates that the acreage of alfalfa in the territory tributary to Los Angeles will be doubled this year on account of the favorable rainy season. There will also be a considerable increase in the acreage planted to corn, although this crop is not a very extensive one in Southern California.

At a meeting of the council of the Winnipeg Board of Trade, held on March 21, a deputation from the hay and feed interests of the city waited upon the council and requested that steps be taken under the General Inspection Act to have an inspector of hay appointed for Winnipeg, so that an official grading of hay shipments to that market could be instituted. The council appointed all members of the board identified with the feed and hay business a special committee to deal with and report on the requirements of their line of trade. The department of trade and commerce at Ottawa will also be communicated with in order to have such appointment made and the regulations laid down in the Inspection Act put into force.

REVIEW OF THE CHICAGO HAY MARKET.

The prices ruling for hay in the Chicago market during the past four weeks, according to the Daily Trade Bulletin, were as follows:

During the week ending March 18, quotations at the close ranged as follows: Choice Timothy, \$12.50@13.50; No. 1 Timothy, \$11.00@12.00; No. 2 Timothy, \$9.50@10.50; No. 3 Timothy, \$8.50@9.00; Choice Prairie, \$9.50@10.50; No. 1 Prairie, \$8.00@9.00; No. 2 Prairie, \$7.00@7.50; No. 3 Prairie, \$6.00@7.00; No. 4 Prairie, \$6.00@6.50. Inside price on Prairie Hay for State and outside for Kansas, Nebraska and Iowa hay. Sales ranged at \$8.50@13.00 for fair to choice Timothy, \$9.50 for Mixed Hay, \$6.00 for State and \$7.00@9.00 for Iowa Prairie Hay. Wheat straw sold at \$6.50 and Oat Straw at \$6.50@7.00. The receipts for the week were 6,805 tons, against 6,175 tons for the previous week. Shipments for the week were 282 tons, against 263 tons for the previous week. A steady feeling prevailed for both Timothy and Prairie Hay and prices exhibited no material change.

During the week ending March 25, quotations at the close ranged as follows: Choice Timothy, \$12.50@13.50; No. 1 Timothy, \$11.00@11.50; No. 2 Timothy, \$9.50@10.00; No. 3 Timothy, \$8.00@9.00; Choice Prairie, \$9.50@10.50; No. 1 Prairie, \$7.50@8.50; No. 2 Prairie, \$7.00@7.50; No. 3 Prairie, \$6.00@7.00; No. 4 Prairie, \$6.00@6.50. Inside price on Prairie Hay for State and outside for Kansas, Nebraska and Iowa hay. Sales ranged at \$8.50@13.00 for fair to choice Timothy, \$5.00@6.50 for State and \$6.00@10.50 for Iowa and Prairie Hay. Rye Straw sold at \$9.00; Wheat Straw at \$6.00@6.50, and Oat Straw at \$6.50. The receipts for the week were 7,667 tons, against 6,805 tons for the previous week. Shipments for the week were 290 tons, against 282 tons

for the previous week. The arrivals of Timothy Hay were large during the week, and the demand was only moderate. A quiet market was experienced for Prairie Hay.

During the week ending April 1, quotations at the close ranged as follows: Choice Timothy, \$12.50@13.50; No. 1 Timothy, \$11.00@11.50; No. 2 Timothy, \$9.50@10.00; No. 3 Timothy, \$8.00@9.00; Choice Prairie, \$9.50@10.50; No. 1 Prairie, \$7.50@8.50; No. 2 Prairie, \$7.00@7.50; No. 3 Prairie, \$6.00@7.00; No. 4 Prairie, \$6.00@6.50. Inside price on Prairie Hay for State and outside for Kansas, Nebraska and Iowa hay. Sales ranged at \$7.00 for damaged and heating Timothy, and \$8.50@13.00 for fair to choice, and \$7.00 for thrashed, \$7.75@9.00 for Mixed Hay, \$6.00@7.00 for State and \$6.50@11.00 for Iowa and Kansas Prairie Hay. Rye Straw sold at \$9.00@9.50, and Oat Straw at \$5.50@7.00. The receipts for the week were 5,948 tons, against 7,667 tons for the previous week. Shipments for the week were 476 tons, against 290 tons for the previous week. The demand for all grades of Timothy Hay was good early in the week, but later the market became dull. Choice Prairie Hay was firm throughout the week.

During the week ending April 8, quotations at the close ranged as follows: Choice Timothy, \$12.50@13.50; No. 1 Timothy, \$11.00@12.00; No. 2 Timothy, \$9.00@10.00; No. 3 Timothy, \$7.00@9.00; Choice Prairie, \$9.50@10.50; No. 1 Prairie, \$7.50@8.50; No. 2 Prairie, \$7.00@7.50; No. 3 Prairie, \$6.00@7.00; No. 4 Prairie, \$6.00@6.50. Inside prices on Prairie Hay for State and Outside for Kansas, Nebraska and Iowa hay. Sales ranged at \$5.50@13.50 for poor to choice Timothy, \$5.50 for State and \$6.50@11.00 for Iowa, Kansas and Nebraska Prairie Hay. Rye Straw sold at \$9.50, and Oat Straw at \$4.00@6.50 for poor to choice. The receipts for the week were 5,059 tons, against 5,948 tons for the previous week. Shipments for the week were 264 tons, against 476 tons for the previous week. Choice grades of Timothy and Prairie Hay were in light supply, and the inquiry was good, consignments selling readily.

FOREIGN NEWS

In 1840 Europe produced four-fifths of all the grain in the world; now she grows less than half. —London Miller.

Argentina expects to export from the crop now ripe 3,000,000 tons of wheat, 2,700,000 tons of corn and 800,000 tons of flaxseed.

The wheat yield of New South Wales, crop just harvested, is estimated at 16,464,000 bu., of which 8,000,000 bu. will be available for export.

The New Zealand Government, controlled by the labor party, has notified farmers and others that extra charges will be made for the carriage of all sacks containing more than 200 pounds of wheat, oats or barley on New Zealand railways. This will put a stop to the use of large bags with very often nearly 400 pounds weight of grain.

Last year a French agriculturist planted experimentally some Moy maize derived from Dang-Hid, Liang Bian, Indo-China. The stems are stated to have attained a height of over 14 feet. Horses and cows are said to eagerly devour the plant. The Moy maize did not produce any seed, which is said to be due to the drought that prevailed last summer; if planted in irrigated soil an expert believes the plant would bear.

At a recent (in February, 1905) congress of representatives from different bourse committees and of trade and industry, held at St. Petersburg, Mr. M. M. Feodoroff, director of the commercial department of the Russian Ministry of Finance, made the important announcement that the introduction of export grain certificates, similar to those used at Nicolaieff, would be made obligatory in all ports of the Empire, the project having already received imperial sanction. The date of introduction is, however, not yet fixed. The control will be carried out by the bourse committees, where such exist, and in their absence by the officers of the imperial customs. These certificates originated with the Nicolaieff Bourse Committee, which a year ago obtained power to levy a small tax upon exported grain to provide funds for sampling all grain shipped, with a view to checking the excessive adulteration of grain then going on. Shipments containing large percentages of artificial admixture were exposed in the local press, foreign Exchange committees being frequently advised by telegraph. These measures were not altogether successful in improving the quality of the shipments, and it was also found rather undesirable to take the extreme measures of publishing particulars of parcels containing large percentages, seeing that it was not known on what conditions they had been sold. Last year the Bourse commit-

tee introduced a system of giving certificates to any shipper who desired it, such certificates stating the exact weight of grain shipped, the percentage of other cereal bodies and the percentage of non-cereal bodies. Where these certificates were given, Bourse weighers, samplers and controllers carried out the loading, charging the usual tax for so doing. This system met with a fair amount of success, the certificates being asked for in some cases by shippers who wished to have the means of contesting eventual claims by buyers; in other instances buyers demanded the certificate as a protection against inferior shipment or possible fraud.

The importance of the grain trade at Antwerp is explained by the fact that all the cereals of foreign origin consumed in Belgium enter the country through this port. The latter is also the most convenient landing place for many populous parts of South Germany. If the flour mills of Belgium are continuously working, it is calculated on an average 1,000,000 tons of wheat of foreign origin are required. During the last five years the imports of grain have never been less than 2,100,000 tons, and in the year 1903 they reached 2,918,747 tons. The cargoes for the most part arrive in vessels flying the British or the German flag. Wheat constitutes the major portion of the total given, and in 1903 attained 1,626,190 tons. The United States and the River Plate are the chief shippers, after which comes Roumania and Bulgaria, followed by Russia and India.

BARLEY AND MALT

J. Henry Pank, president of J. H. Pank & Co., maltsters, Chicago, Ill., is dead.

The Ottawa Milling Co. of Ottawa, Ont., is reported to be about to erect a new malting plant with a capacity of 600 bushels of malt a day.

The Omaha Elevator Co. of Omaha, Neb., recently completed the work of sacking and shipping 10,000 tons of barley consigned to Kobe, Japan.

It is announced that the Canada Malting Co. of Toronto, Ont., has purchased a site at Notre Dame, Man., and will erect a grain elevator and malting plant.

The Froedert Bros. Grain and Malting Co. of Milwaukee, Wis., will build a \$20,000 storage elevator in that city. The structure will be 40x90 feet in dimensions and 75 feet high.

The addition to the elevator of the Miller Brewing Co.'s malt house at Port Washington, Wis., is nearing completion. It will enable the company to store 200,000 bushels of malt at that place. The malt house was purchased from the Ozaukee Malting Co. by the Miller Brewing Co. last fall. It is equipped with the latest improved machinery to manufacture the highest grade malt.

Regarding the merits of Texas barley, a dispatch from Sherman, Texas, says: "It will be interesting to all Texans engaged in agricultural pursuits to know that in at least a dozen states the government experimental farms are testing barley grown in Grayson County, selected by Agrostologist Spillman of the Department of Agriculture as the best seed he could find, especially for Southern and Southwestern experiments. Close watch of these fields is being kept here and all the information so far has been of a most encouraging nature."

Concerning the barley situation in Wayne County, N. Y., a dispatch from Wolcott, that state, under date of March 31, says: "Wolcott produce dealers say that there is the greatest scarcity of grain offered for sale here this season that has ever been known. Usually at this time of the year there is a rush in grain marketing, especially barley. The barley market this year is nowhere, as the large dealers in the West are shipping grain into this state at a price the lowest for years. As the market now stands farmers refuse to sell."

The American Malting Co. will erect at Buffalo, N. Y., this summer a malting plant which, it is stated, will be the largest of its kind in the world. A site on the Buffalo River has been purchased and plans have been prepared. The site has a frontage of 500 feet and a depth of 700 feet, and adjoins the Electric Elevator. Contracts for excavating and for docks have been let, and the entire plant is expected to be ready for operation by September, when the new barley crop comes in. The plant will consist of a 2,500,000-bushel elevator, storage tanks, cleaning house and a malt house with a daily capacity of 9,000 bushels of malt. It will cost about \$1,000,000. The largest plant now operated by the company was recently completed in Milwaukee, and some idea of the size of the proposed Buffalo plant may be gained when it is realized that the Buffalo plant will have double the capacity of the new

Milwaukee plant. The company now operates the old Curtiss plant in Buffalo, but this will be abandoned when the new plant is ready for operation. Construction work will be commenced at once and pushed to completion as rapidly as possible. Concerning the plans of the malting company, a Buffalo paper states that when the plant in that city is completed the plants now in operation in Cleveland, Erie, Pa., and Hamilton, Ohio, will be closed and the entire Eastern business of the concern will be concentrated at Buffalo.

A. C. Johnson, general agent of the Chicago & North-Western Railway, who recently returned to his headquarters at Winona, Minn., after an extended trip over the company's lines in Minnesota and South Dakota, stated in an interview to a local paper that there would be an increase in the barley and corn acreage along that road this year. The increase in the barley and corn acreage is largely due to the influx of new settlers into that territory and the opening up of new land to cultivation. In the immediate vicinity of Winona there will be an increase in barley acreage due to the assurance of better prices as a result of the opening of the new plant of the Winona Malting Co.

Concerning the duty on American barley malted abroad, the board of general appraisers has decided that American barley shipped out of the country and returned after being malted must pay duty as imported barley malt. It was claimed by S. Liebman's Sons, brewers, of New York, that the barley sent to Copenhagen was returned to them without having been advanced in value or improved in condition by any processes of manufacture or other means. According to the importers the barley was forwarded to Copenhagen for the experimental purpose of having it malted there to see if the foreign method of malting would improve the domestic method. It was contended that the change which the barley underwent while at Copenhagen was merely a natural one and consequently it could not be said to have been improved in condition, and that it has not been advanced in value. This contention was overruled.

IMPORTS AND EXPORTS OF BARLEY AND MALT.

BARLEY.			
Imports—	Bushels.	Value.	
February, 1904			
February, 1905	51	\$ 50	
Eight mo. end. Feb., 1904.....	74,284	36,670	
Eight mo. end. Feb., 1905.....	64,973	31,504	
Exports—			
February, 1904	296,649	168,365	
February, 1905	607,635	307,298	
Eight mo. end. Feb., 1904.....	9,016,368	5,225,131	
Eight mo. end. Feb., 1905.....	7,634,278	3,991,711	

BARLEY MALT.			
Exports—			
February, 1904	41,866	29,755	
February, 1905	29,864	19,951	
Eight mo. end. Feb., 1904.....	262,946	191,671	
Eight mo. end. Feb., 1905.....	264,353	187,555	

CAR SERVICE IN OHIO.

The laws of Ohio being inadequate for all conditions the following agreement was by mutual consent entered into by all the railroad companies of Ohio and the Ohio Shippers' Association. It went into effect on April 1, 1904, and is still in force and effect, having proved very satisfactory to both shippers and carriers.

For the purpose of securing uniform application of car service rules, the following instructions must be observed by the managers of all car service associations within the state of Ohio:

1.—Car service charges will not be enforced where fault primarily is with the railroad company, for example:

(a) Failure to furnish within reasonable time empty cars upon order from shipper when suitable cars are available.

(b) Failure to place for unloading within reasonable time cars in yard, for which order for disposition has been received.

(c) Failure to move within reasonable time from industry track a car upon which car service has accrued while being loaded.

(d) Bunching of cars by railroads.

2.—Car service managers will arrange for the prompt examination of all disputed claims for car service charges so that, as far as practicable, only legitimate charges will be collected.

3.—Car service managers will arrange with the agents of the railroads to provide prompt payment of all refunds to which shipper may be entitled.

4.—Car service associations will arrange to change car service rules so as to grant uniformly throughout the state ninety-six hours' free time for the unloading of bituminous coal, coke, fruits and vegetables for a period of twelve months from April 1, 1904, after which time this rule shall be

subject to revision, as provided for in Section 7.

5.—Car service managers in the state will arrange to meet quarterly, or oftener if desired, with committee from the Ohio Shippers' Association, for the purpose of hearing appeals from the decisions of car service managers, and other complaints, and adjusting the application of car service rules under these instructions.

6.—It is recommended to all railroads in the state that instructions will be issued by their traffic departments to all agents that bills of lading will be furnished to all consignors on demand.

7.—The railroads of Ohio will appoint a committee of three members on request, to meet with a committee of three members of the Ohio Shippers' Association, to take up and adjust appeals and other matters that may properly come before that body.

IN THE COURTS

Charles W. Pennock, grain dealer, of Reading, Pa., was on March 24 adjudged a voluntary bankrupt. Liabilities, \$21,939.05; assets, \$14,733.60. Referee, Samuel E. Bertolet.

The Coe Commission Co., bucket-shop, at Minneapolis, has been forced into involuntary bankruptcy in the United States District Court, and Thomas H. Salmon, attorney, has been made trustee.

The Eagle Milling Co. has filed a damage suit against J. T. Stark Grain Co. of Plano, at Sherman, Texas, alleging unfulfilled (in part) contract to deliver 5,000 bushels of wheat at 77½c, and claiming \$3,500 damages.

The rumor that the suits against the directors of the American Malting Co. for the restitution of money paid out in unearned dividends had been compromised is denied, the suits being still pending in the higher courts.

Josiah D. Myers, grain dealer of Worthington, Ind., has brought suit against the bondsmen of Burton J. Millis for \$8,000. It is alleged that Millis handled grain for plaintiff and, becoming short in his accounts, fled the country.

Edwin L. Gehman and Herbert W. Shriver on March 28 applied for a receiver for the firm of Gehman, Loutzenheiser & Co., grain and hay dealers at Louisville, Ky., and Oscar M. Abt was appointed. The object of the action is to settle a partnership disagreement.

The Cleveland Commission Co. began suit on March 30, at Salt Lake City, against the C. A. Smurthwaite Produce Co., claiming damages of \$1,218.94. The complaint is that a contract to deliver 92,280 lbs. of good, dry milling wheat, at \$1.55 per cwt. f. o. b. Sacramento, Cal., was not fulfilled.

The case of the Blackwell Milling and Elevator Company against the W. U. Telegraph Co. has gone to the Supreme Court of Oklahoma from Kay County. The case grew out of a loss of two lots of wheat of 20,000 bushels and 5,000 bushels, respectively, sold by the complainant to Richardson & Co. at Gainesville, Texas, through the alleged negligence of the Telegraph Company in forwarding an acceptance of Richardson & Co.'s bids. The telegrams were in cipher. On the 20,000 lot the loss was 2 cents per bushel.

An interesting suit, involving rebates, overcharges, etc., has been taken from Crawford Co., Kan., on appeal by the Kansas City Southern Railway Co. The facts are given by the Kansas City papers substantially as follows: "In 1901 Fields & Slaughter, a grain firm doing business in Iowa and Nebraska, sold a large quantity of corn to Forrester Bros. of St. Louis, to be shipped from Omaha to Texarkana, Texas. Afterwards Forrester Bros. failed, owing the Iowa firm considerable money. Fields & Slaughter got a judgment against Forrester Bros. and then garnished the Kansas Southern in Crawford County, Kan., claiming that the railroad owed Forrester Bros. something over \$1,100 on overcharges. It seems that the agents for the St. Louis firm went to E. H. Shafter, freight traffic manager for some of the Omaha-Kansas City lines, offering him 500 cars of business if he could get a low rate from Omaha to Texarkana. Shafter made him a low rate, which does not appear in the record, from Omaha to Kansas City, and then got a rate of 8 cents from Kansas City to Texarkana over the Kansas City Southern. The corn was to be shipped by October 30, but the plaintiffs claim that the Kansas City Southern did not furnish the cars fast enough to get it off during that month. After October 31 the Kansas City Southern put its rate up to 10 cents a hundred and afterward to 14 cents. The receipts show that the Forrester Company was credited with overcharges to a large amount, but the Iowa firm claimed that there should have been still

further rebates. The railroad company set up the defense that it had made the rates to Shauffer, and that it was his duty to file it with the Interstate Commerce Commission at Washington, and that as he had not done so the rate was an illegal contract. The Kansas City Southern, however, allowed it to remain in force until October 31, and then advanced it. The jury brought in a verdict for the Railroad Company, but a new trial was granted, and it is from this action that the railroad appeals to the Supreme Court."

H. B. Kershaw was arrested recently at Pendleton, Wash., on a charge of larceny by bailee, preferred by G. A. Hartman Sr., and bound over to the Circuit Court under bonds of \$1,000. Mr. Kershaw was acting as agent for the Kershaw Grain Company of Tacoma when the alleged irregularity was committed, which was some seven years ago. The company is alleged to have appropriated 703 sacks of wheat which had been stored at its warehouse at Hillsdale station and sent it to Tacoma, where it was sold, it is alleged, by the company.

The jury in the U. S. court at Fargo, N. D., in the case of the Farmers' Independent Elevator Company of Denbigh vs. the London, Liverpool & Glohe Insurance Company, prosecuted by Edward Wood Co., as mortgagees, brought in a verdict that was in the nature of a compromise. The insurance company must pay its proportionate share of the insurance on the building, \$500, but escapes payment of any insurance on the grain, of which it was claimed by the plaintiffs there was \$18,000 worth in the elevator at the time of the fire. This action was tried once at the Grand Forks term of court and a disagreement was the result.

SEEDS

George C. Watson, a seed dealer of Philadelphia, Pa., is reported to have made an assignment.

The Garber Seed and Wool Co. succeeds W. H. Lefferson & Co. in the seed business at Findlay, Ohio.

The Topeka Seed House has succeeded to the business of the Downs Seed and Grain Co. at Topeka, Kan.

F. Reichenbach of Boone, Iowa, will, it is stated, open a seed and implement store in Luther, Iowa, about August 1.

The Sioux City Seed and Nursery Co. of Sioux City, Iowa, has secured a site at Alpena, Mich., and will erect a seed elevator. It will be 48x84 feet in dimensions and equipped with cleaning and handling machinery. A spur track to furnish shipping facilities will be built to the plant. The company makes a specialty of peas.

The Cleveland Seed Co. of Rochester, N. Y., has broken ground for its new \$10,000 plant at Avon, N. Y. For several years this company has been raising its seed beans in the vicinity of Avon and shipping them to Cape Vincent, N. Y., where they are prepared for market and reshipped to Rochester. Hereafter all shipments will be made direct from Avon to the consumer. Connected with the plant there will be extensive testing grounds and a department for the splitting of peas for the grocery trade.

The Minnesota Seed Co. has been organized at New Ulm, Minn., with a capital of \$50,000. The officers are: President, Dr. J. L. Schoch; vice-president, Ferdinand Crone; treasurer, Jacob Klossner Jr.; secretary and manager, Fred Meier. The company has secured a site and will erect a three-story brick building to be used as a warehouse and seed sorting station. The new organization was formed to take over and extend the seed business which Mr. Meier had been carrying on at Sleepy Eye, Minn., for several years. A branch will be maintained at Sleepy Eye, but the headquarters of the company will be at New Ulm.

In response to requests from farmers for information in regard to securing alfalfa seed, an officer of the Minnesota Experiment Station wrote as follows: "We have no seed for distribution this year. There is only a very limited amount of Grimm alfalfa to be had this year, and I think that will be distributed through the United States Department of Agriculture. The ordinary commercial seed can be obtained from any seedsman of the Northwest. I have very little faith in that, however, and would suggest that you wait for a year or two until you can secure the Grimm alfalfa, grown near Excelsior, Minn., or this variety, grown at any point. At the present time this is not distributed widely, and I think that Excelsior is about the only place where it can be obtained. In discussing the matter you should be very careful to emphasize the fact that it is the variety known as

Grimm that appears to be hardy. The mere fact that alfalfa is grown near Excelsior, Minn., does not mean that it is of the hardy variety, as there have been many strains of commercial seed sown at that point."

F. E. Winans, seed and grain merchant, Chicago, reports, April 12, as follows: There has been a very steady market for Cash Timothy Seed, with no particular change to note in price. Choice, bright, recleaned lots are firm and in good request. Poor Seed may be called slightly lower. There is more interest being shown in new crop futures. Three dollars and twenty cents per cental is now being bid for new Timothy Seed for September delivery, the same being offered in a limited way at \$3.25 per cental. Recent advices indicate that in certain sections of the Timothy Seed belt the meadows are being plowed up. This would indicate some decrease in the acreage for the coming crop. Present prices seem fully justified by existing conditions.

C. A. King & Co., Toledo, Ohio, in their circular of April 6 publish the following letter from Caghey & Carran, seed dealers of Detroit, Mich., concerning dodder in clover seed: "We think you should sound a word of warning through the medium of your circular. There is a large amount of Chilian seed afloat to this country that contains a large percentage of a very objectionable tare called 'Kleeside' or 'Dodder.' Germany has a law against selling clover seed containing this objectionable seed. The plant is a parasite, a little vine that takes its substance from the clover, strangling the clover vine. The seed itself is a small, round seed of a grayish-brown color, a little smaller than the clover seed, and if this seed is generally distributed in this country it will almost ruin our export trade. If this seed is sowed at all it should be thoroughly cleaned and the screenings burned. We want to add that we have refused to buy any of this Chilian seed at any price, although we have had some very low offers."

A recent Sioux Falls, S. D., dispatch has the following concerning South Dakota clover seed: Instead of the farmers of South Dakota depending entirely upon those of the Eastern states for their seed grain and clover seed, it has reached a point where the farmers of this state are called upon to furnish the farmers of other states and even the government with these varieties of seed. J. M. Dunmire, an expert stock raiser and agriculturist, residing in Bonhomme County, has received a request from Charles J. Brand of Washington, D. C., for a quantity of red clover seed. Mr. Brand is in charge of the laboratory of plant life history at the national capital, and the clover seed furnished by the South Dakota man is to be used in experimental work in various states. Tests of red clover were made last year in sixteen states, extending from Vermont to Washington and Oregon, and as far south as Tennessee, for the purpose of comparing the various strains of red clover seed in different localities. These tests will be continued this year. The tests for South Dakota are being conducted at Big Stone, Grant County.

TRANSPORTATION

The Eastern Illinois has announced that it will absorb switching charges, except bridge tolls, at St. Louis.

Col. Harry F. Hunter, immigration agent for the St. Paul, is quoted as saying: "I believe that if the Chicago, Milwaukee & St. Paul extends to the coast the main line will be from Evarts (S. D.)."

A new schedule of grain and flour rates from Oklahoma and Indian Territory points to points in Texas by the M., K. & T. was effective March 21. Old rates are reduced, in some instances as much as eight cents.

There is some talk of grain chartering on the Pacific Coast, but little actual business has been done. With the possible exception of one or two charters at San Francisco nothing has been closed. Most vessel owners are inclined to regard charters for September-November loading too much of a gamble.

Lake navigation opened at Superior on April 8, when the steamers Sultana and Hutchinson, grain laden, cleared for Buffalo. The first boat with a full cargo of grain to leave Chicago cleared at South Chicago on April 11. The boat was the Mack, carrying 190,000 bushels of corn to Buffalo. The Squires began taking on a load of 250,000 bushels of corn at the Chicago Grain Company Elevator at South Chicago on the same date. The Susquehanna sailed April 10 with a cargo of flour, bran, and a small amount of corn. The general disposition among vesselmen was to wait until advices

from the North were favorable, some ice still being reported. Rates are reported firm at 1½ cents on corn to Buffalo.

Grain dealers at Champaign, Ill., are expecting a restoration of the rates between the Northwest and Memphis, which will give them a chance at the Southern market. Of late Nebraska shippers have been able to get corn to Memphis at from one to two cents a bushel cheaper than Champaign shippers can.

Western trunk lines have decided to make the minimum weight on grain products throughout the entire Western trunk line territory 30,000 pounds to the car. There will be no change in the present minimum weights on business destined to points in the Central Freight Association or Central trunk line territories.

Western roads have made a differential of 1½ cents on grain from Iowa and Missouri River points to Peoria over Chicago. This is made to equalize the through rates via the various gateways to the Atlantic Coast, and is said to have been adopted at the suggestion of the Chicago Board of Trade.

It is rumored from New York that the Kansas City Southern is to be made the nucleus for a Canada-to-the-Gulf grain route. It is stated that the consolidation would take in the Kansas City, Quincy & Omaha, the Iowa Central and the Chicago, Milwaukee & St. Paul roads, making a route from the Twin Cities to Port Arthur, on the Gulf.

Major H. M. Chittenden, United States engineer in charge of Missouri River, has been appointed on a committee to co-operate with Governor Folk of Missouri in the latter's plan to restore Missouri River transportation. It is believed that steamboat traffic on the Missouri and Mississippi rivers can be revived as a part of the development of the grain trade with the Orient through the Panama Canal.

Oklahoma railroads have, it is said, decided to obey the demurrage law recently passed by the legislature. The law is stringent, requiring the railroads to furnish cars at the time specified in their order and in the numbers demanded or else suffer a heavy penalty. The railroads have announced that they will supply cars to the farmers during the wheat season, but will insist on a deposit when the car is ordered to insure the farmer having the wheat ready to load when the car arrives.

The State Railroad Commission has adjusted rates on wheat and corn in Kentucky. A reduction of four cents has been ordered on shipments from Morganfield over the Illinois Central. The grain men at Morganfield complained against an increase from 22 cents to 26 cents and the Commission decided that the rate was excessive. The grain is shipped mainly to Atlanta. The Commission has also considered the complaint of Paris, Ky., dealers, who allege that they are discriminated against in favor of Lexington.

Rates on export grain, which went into effect on April 1, may be readjusted on or before June 15. Existing rates from Omaha are: To New York, 24 cents; to Philadelphia, 23 cents; Baltimore, 22½ cents; Gulf ports, 18 cents. Grain exporters at Atlantic Coast ports are dissatisfied with the rates. There will be a meeting of the Trunk Line and Central Freight associations and the Western Trunk Line Committee on June 10, and on June 24 they will hold another meeting to which the Gulf port lines have promised to send representatives. An effort will be made to induce the Gulf port lines to accept a differential of 3 or 3½ cents.

The state of Oregon has conveyed to the government title of the entire right-of-way for the Dalles-Celilo Canal. This action removes the last obstacle to the construction of the canal and insures the early beginning of work. This great undertaking is a canal and locks, around an obstruction in the Columbia River about 100 miles east of Portland. The canal will admit of transportation by water of almost the entire wheat crop of Eastern Oregon, Eastern Washington and Idaho to the Pacific Ocean. The length of the waterway that will be opened to traffic will be over 500 miles and will reach from the Pacific Ocean to Lewiston, Idaho.

A new record for loading grain out of an elevator was set at the Nye-Jenks Elevator at South Chicago on April 12 when 195,000 bu. corn was sent out through the chutes in two hours and forty minutes. The time would have been much reduced had it not been for the fact the boat into which the corn was loaded had to be shifted and an inspector waited for at the end of the first forty-five minutes, during which time 135,000 bu. had been loaded. Included in the operation of unloading is the weighing of the grain. The corn was loaded into the steamer P. P. Miller, which cleared late that day.

CROP REPORTS

Seeding is general in Minnesota and the Dakotas.

Very little wheat was winter killed in New York. Prospects are good.

Corn and oats are receiving considerable attention in Georgia this season.

Alabama farmers are reported seeding a larger acreage of oats than for years past.

In California weather conditions continue to be all that could be desired. Grain crops are in excellent condition.

The Kentucky report for April makes the wheat condition 90, as compared with 85 for March. Rye condition is 93.

Late frosts in Nebraska are reported to have been severe enough to kill the Hessian fly eggs, but doing no damage to the crop.

Fall grain in the Pacific Northwest is well advanced. The acreage of wheat is larger than usual, much new land being under crop for the first time.

"Seeding of oats in Iowa was practically completed," says James G. Martin of the Northern Grain Co., "about three weeks earlier than last year."

Despite heavy rains it is stated that wheat and oats in Texas are doing well. The latter promises to be one of the best crops in years. Early corn in some sections was damaged by too much water.

A report on winter wheat in Kansas, issued by the State Board of Agriculture on April 6, estimates the total area of growing wheat at 5,712,000 acres, about 1.8 per cent less than last year. The average condition is 95.4.

The Ohio state report, issued on April 1, states that wheat is making rapid growth. The condition is 84, with an estimated area of 1,859,534 acres. This is about the same area as that seeded for 1904, which was the lowest in a number of years.

C. A. King & Co. of Toledo say of the Michigan April report: "Wheat condition it makes 95. Last April condition was 79, but down to 47 by June, yielding less than seven millions, their smallest crop. Prospect has seldom been more favorable. Very little was winter killed. Rye condition 95."

According to the state crop report issued on April 1, plowing and seeding in Illinois are three to four weeks ahead of last year. Plowing for oats is well advanced or well under way, and in the northern and the central districts considerable breaking of sod for corn has been done. Wheat is generally making rapid growth.

The Iowa state report, April 10, says: "Very good progress has been made in completing the seeding of oats and barley and preparing ground for the corn crop. Much more than the usual amount of plowing was done in the late fall and early spring, and with normal conditions in the future a very large area will be in readiness for corn planting before May 1."

Under date of April 5 the Missouri report says that plowing for corn is progressing rapidly, about one-fourth of the entire acreage having been plowed up to April 1. In a few counties the soil has been too wet to work. Corn planting has begun and a number of farmers have planted as far north as the central part of the state. Other advances indicate a larger oats crop than for years, as the acreage in the central part of the state is very great.

The monthly report of the chief of the bureau of statistics of the department of agriculture shows the average condition of winter wheat on April 1 to have been 91.6, against 76.5 on April 1, 1904, and 83.1, the mean of the April averages of the last ten years. The following table shows for the principal winter wheat states the averages of condition on April 1, the corresponding averages one year ago and the mean of the corresponding averages of the last ten years:

States.	April 1, 1905.	April 1, 1904	Ten-year average.
Kansas	92	78	84
Missouri	91	81	83
Nebraska	95	81	88
California	100	92	87
Indiana	92	66	77
Illinois	90	83	81
Ohio	89	66	76
Pennsylvania	92	74	85
Oklahoma	88	66	86
Texas	92	68	81
Michigan	94	78	80
United States	91.6	76.5	83.1

President Cortelyou of the Kansas Grain Dealers' Association, who recently returned from an Eastern trip, is quoted as saying: "The wheat looks better in Kansas than it does in any of the states I have visited. The wheat looks quite good in Missouri, but not nearly as good in Indiana and Illinois. East of the Alleghenies it looks very good again. On the whole, from what I have seen and heard of present crop conditions, the outlook seems to be good for a big wheat crop all over the country so far."

LAKE WEIGHMASTER TO GRAIN CARRIERS.

Mr. Junius S. Smith, lake weighmaster of the Buffalo Chamber of Commerce, has sent the following circular letter to owners, managers and masters of grain carriers:

"Years ago, under the old Board of Trade, at the urgent request of the vessel interests for some action, I was appointed to the position of weighmaster (now lake weighmaster), and an attempt

weighmaster, except as his deputies are employed by the grain carriers to see to their cargoes. It is fully appreciated by many of these, but there are still some who do not or will not understand that all this work should go through this one channel in order to be just to themselves and to me."

LATE PATENTS

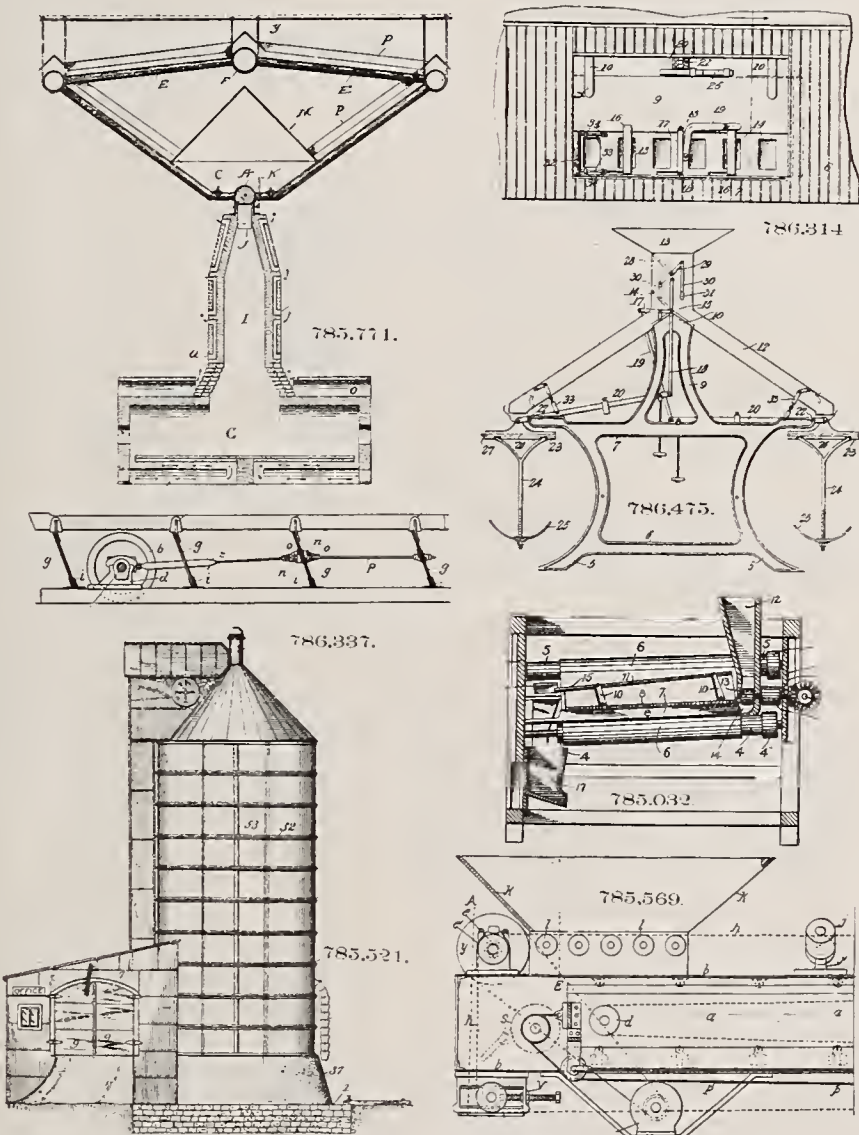
Issued on March 14, 1905.

Bean Separating Machine.—Otto F. Beythan, Freeland, Mich. Filed June 1, 1903. No. 785,032. See cut.

Issued on March 21, 1905.

Storehouse for Grain or the Like.—Robert C. Roach, Hutchinson, Kan. Filed May 8, 1903. No. 785,521. See cut.

Extension Conveyor.—David D. D. Plunket, New



was made to cut down the grain shortages to a reasonable amount. A few weeks' trial convinced me that much more than mere tallying was needed. The remedy was applied as soon as proper arrangements could be made, and so far as the data I had could be brought to bear. These data have often been questioned because they were not complete, as I did not have all the work; but imperfect as they were, the result has been a reduction of fully 70 per cent in the average shortage of grain. This result has been brought about by careful, systematic work in weighing the grain, not alone at Buffalo, but at the ports from which grain is received; by the thorough test under my supervision of all scales in elevators here, and the same work on scales and connections by proper parties at the loading points, and by a constant mutual check on the work of the various elevators all over the lakes.

"These checks have in many cases indicated that some particular house was at fault, from some unknown cause, enabling us to find and correct it, often with settlement for shortage, and leaving it in good condition for other craft. Even during the past year adjustments were made covering several thousand bushels. Such adjustments, however, do not cover the whole ground, as the real saving is in keeping the houses in order for accurate work. In this our work never ceases. All this has been done at the request of the vessel interests, with a vast expenditure of time and labor, and no small cost in money, and is to the advantage of every grain carrier on the lakes. It is done without any compensation whatever to the

Southampton, England. Filed Sept. 9, 1904. No. 785,569. See cut.

Issued on March 28, 1905.

System of Pipes with Furnace for Drying Sprouted Grain.—Charles W. F. Steimmann, San Francisco, Cal. Filed July 14, 1904. No. 785,771. See cut.

Issued on April 4, 1905.

Grain Car Door.—Cordilleras L. Robbins, Pekin, Ill. Filed March 14, 1904. No. 786,314. See cut.

Conveyor.—George F. Zimmer, London, England. Filed Dec. 21, 1903. No. 786,337. See cut.

Machine for Bagging and Weighing Grain.—James B. Williams, Minden, La. Filed July 25, 1905. No. 786,475. See cut.

Automatic Weigher.—Chester Bradford, Indianapolis, Ind. Filed Jan. 6, 1905. No. 786,785.

Railway officials have still under consideration the establishment of a grain and freight clearing office at Kansas City as a branch and under the control of the Missouri Valley Car Service Association.

The annual reports of the chief inspector of grain, the state weighmaster, warehouse registrar and supervising inspector of country elevators, for the crop year ending August 31, 1904, to the Railroad and Warehouse Commission of Minnesota have been published in permanent form. These documents have been noticed heretofore in these columns.

GULF GRAIN TRADE.

Eastern cities make a mistake, says the Louisville Courier-Journal, if they expect to control the grain trade and divert it from the natural channels by mere force of their commercial power and by dictation to railroads. If they can command such rates over the lines leading eastward as will warrant shipment there rather than southward, that is all well; but their effort to induce or force the Western and Southern roads to increase their rates on Southern freights cannot succeed. A Kansas paper points out the folly of expecting Wichita to ship wheat to New York by way of Chicago when Chicago is farther from New York than Wichita is from Galveston. The argument applies with similar force to nearly all points in the Mississippi Valley, leaving out the competitive advantages of the water route. Artificial policies in these respects conducted by concentrated eastern capital, prejudice and alleged lack of facilities offered by Southern ports, have retarded these trade developments already too long. But the terminal facilities now provided, especially as regards elevators and lines of European steamers, as capable of handling the trade as those of Eastern cities, have brought the problem past the experimental stage; and it cannot be thwarted now by any such devices as have been resorted to.

Farmers near Huntsville, Ala., are reducing cotton acreage and increasing that to oats.

Miscellaneous & Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS WANTED

ELEVATOR WANTED.

Kansas or Nebraska elevator wanted for cash. Address

BOX 574, Hutchinson, Kan.

ELEVATOR WANTED.

Elevator, in Southern Minnesota, on the Omaha Railroad, wanted in exchange for a section of wild land free from incumbrance near Carrington, N. D. Address

BOX 594, Windom, Minn.

HELP WANTED

WANTED.

Young man stenographer and bookkeeper, Ben Pitman writer preferred. Must be able to take charge of correspondence. Give experience and reference. Address

BOX 592, Findlay, Ohio.

MILLER WANTED.

A corporation to erect a modern flour and corn mill in one of the best locations in Southern Illinois; \$50,000 capital, \$20,000 yet for sale. An experienced miller with \$10,000 of stock would be considered, if found satisfactory. Steady employment and good salary to man up to date in all methods of modern milling. Highest bank references. Address

M., Box 4, care "American Elevator and Grain Trade," Chicago, Ill.

GRAIN WANTED

GRAIN WANTED.

Wanted—Feed barley and new No. 2 and No. 3 rye.

W. H. SMALL & CO., Evansville, Ind.

WANTED.

In car lots, White Cob, Southern Paragon and millet. Quote, with samples.

MANITOWOC SEED CO., Manitowoc, Wis.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

MONEY IN YOUR POCKET.

If you want to change that second-hand machine into money advertise it in this department. Or if you have a grain elevator to sell or rent, or wish to buy, make your wants known through these columns.

GRAIN AND SEEDS

WESTERN HEADQUARTERS

For Alfalfa, Clover, Timothy, Millet, Sorghum and Kaffir Corn. Write for prices.

MISSOURI SEED CO., Kansas City, Mo.

FOR SALE.

Several cars of good No. 1 and No. 2 timothy hay and two cars No. 1 long rye straw; also No. 3 hay and oat straw. Address

SPENCER BILLINGTON, Fultonville, N. Y.

EAR SEED CORN.

To the trade at \$1 per bushel, f. o. b. Chicago, sacked. We advertise for you. Send for advertising proposition and catalogue, which shows recommend from Professor Holden.

GUERNEY BROS., Elk Point, S. D.

AMES SEEDS.

Pure bred, choice, recleaned and selected. Reid's Yellow Dent Ear Corn, \$2.75 per bushel; Speltz (bags free on above), 75 cents per bushel; Choice Medium Red Clover (bags 20 cents), \$9.00 per bushel; Choice Timothy (bags 20 cents), \$1.50 per bushel. On track Ames, Iowa. Samples furnished on request. Send order, accompanied by draft, to B. A. LOCKWOOD GRAIN CO., Des Moines Iowa.

SCALES

SCALES FOR SALE.

Scales for elevators, mills, or for hay, grain or stock; new or second-hand at lowest prices. Lists free.

CHICAGO SCALE CO., 299 Jackson Boulevard, Chicago, Ill.

ELEVATORS

FOR SALE.

Modern elevator for sale. New; 40,000 bushels; at good grain point; \$7,500; easy terms. Address C. J. MEYER, Peotone, Ill.

FOR SALE.

One new 10,000-bushel elevator and coal trade. Good grain and hay point. One corn dump. Reason for selling, other business to look after.

W. L. BRISTOLL, Mt. Blanchard, Ohio.

FOR SALE.

A good paying elevator, feed, coal and produce business in a good county seat town of 3,000 in Iowa. Good reasons for selling. Price, \$5,000. Address

BOX 188, Marengo, Iowa.

FOR SALE.

First-class, modern cleaning, grading and transfer elevator. Track and hopper scales, power shovel, automatic loader, best of cleaning and grading machinery; fine location. Good reasons for selling. At "snap" price if sold soon. Address

W. C. HAYWARD, Davenport, Iowa.

FOR SALE.

Dwelling house and two elevators at good towns on Great Northern, near Canadian line. Handled over 100,000 bushels of wheat each, also some flax, on last crop. New roads will not cut territory down. Am moving west on account of health, reason for selling. Write for particulars.

A. L. FOSTER, Souris, N. D.

MACHINERY

FOR SALE.

One three-horsepower Fairbanks Gasoline Engine, almost new.

WELLINGTON MILLING & ELEVATOR CO., Wellington, Kan.

FOR SALE.

One 20, 25 and 30 horsepower gasoline engines, our make, guaranteed in every respect.

CENTRAL IRON WORKS, 201-209 S. Front St., Quincy, Ill.

FOR SALE.

One Sullivan Ear Corn and Shelled Corn Grinder. 80 bushels' capacity. Can be used for sheller also. With new cone and shell. \$50, f. o. b. here. Forty-bushel Cranson Scourer for low grade wheat, \$40. Address

EMIL BRUNNER, Hope, Kan.

FOR SALE.

Otto Gas or Gasoline Engine, 38 horsepower, good as new, but too small; now being replaced by 75-horsepower engine. Will sell cheap for cash, or a little cash and balance on time, payments to suit. Address

THE H. L. STRONG GRAIN CO., Kansas City, Mo.

Here's another bargain: Horizontal slide valve engine—70 H. P. Best of condition. Good as new. Price, \$200. Can be seen at our works.

H. W. Caldwell & Son Co. - - Chicago

FOR SALE

Paxton Mill,	-	Harrisburg, Pa.	1,200 bbls.
Swartley Mill,	-	Doylestown, Pa.	120 "
Mingle-Fulmor Mill,	-	Hatboro, Pa.	100 "
Gochbauer Mill,	-	Boiling Springs, Pa.	100 "
Columbia Mill,	-	Columbia, Pa.	150 "
Loucks-Codorus Mill,	-	York, Pa.	125 "
Freed Mill,	-	North Wales, Pa.	100 "

C. H. DEMPWOLF, YORK, PA.

Burlap Bags!! Grain Bags!!

ALL SIZES MADE TO ORDER

W. J. JOHNSTON, 182 Jackson St., Chicago.

ROOFING AND SIDING.

SYKES STEEL ROOFING CO.

611 So. Morgan Street, Chicago



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WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap Roofing, "V" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

Corrugated Iron and Metal Roofing For Grain Elevators

And take contracts either for material alone or job completed. Write us for prices. We can save you money.

GRAIN RECEIVERS

BUFFALO

W. W. ALDER

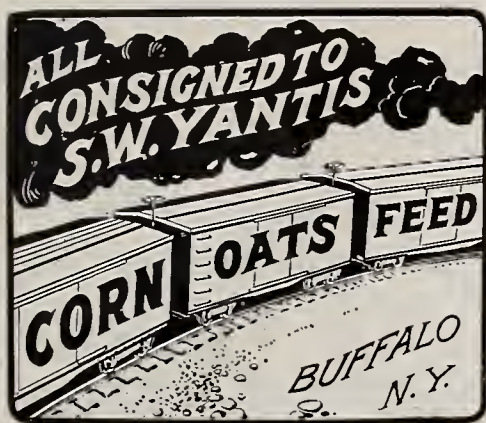
T. J. STOFER

Alder & Stofer

COMMISSION
MERCHANTS

We do not buy any grain, but handle on commission, and solicit your Buffalo consignments.

83 Chamber of Commerce,
BUFFALO - - NEW YORK



Consign Your Grain to BURNS BROS.

44 Board Trade, Buffalo, N. Y.

QUICK SALES. IMMEDIATE RETURNS. RELIABLE REPORTS.
Members Grain Dealers National Association.

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The Wm. S. Gilbreath Seed Co.

WHOLESALE
FIELD SEED MERCHANTS
INDIANAPOLIS, IND.

Buyers and sellers of Field Seeds will do well to correspond with us; we handle in large quantities:

Red Clover, White Clover, Red Top, Hungarian, Kaffir Corn,
Timothy, Alfalfa, Orchard Grass, Dwarf Essex Rape, Peas,
Alsike, Blue Grass, Millets, Cane,

Send us your samples or ask for ours

New 'Phone 4313

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Robinson's Cipher

NATIONAL GRAIN & HAY CO.

Grain, Hay, Flour and Feed Commission

Top Market Prices—Quick Returns

46 Board of Trade,

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SUCCESSORS TO

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PITTSBURG, PA.

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Proprietors Iron City Grain Elevator
CONSIGNMENTS SOLICITED

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Ave. and Tenth St., Pittsburg, Pa.

Established 1878

Wholesale Grain, Hay and Mill Feed

CONSIGNMENTS SOLICITED

References: The Colonial Trust Co., Pittsburg, Pa.

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The Best Market in the World

Our superior facilities and connections
with large buyers of HAY and GRAIN
enable us to get the best prices. Liberal
advances made on shipments.

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References: Duquesne National Bank.
Washington National Bank.

In the one spot 38 years.

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Hay, Corn, Oats

Rooms 4 and 5, No. 8 Wood Street
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Will buy outright or sell on usual rates of commission.
Liberal Advancements made on Consignments

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Consignments Solicited

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Write us for official Price Current, mailed regularly
References—Third National Bank; Germania Savings Bank

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O. MOHR, Mgr.

G. C. HOLSTEIN, Sec'y-Treas.

Mohr-Holstein Commission Co.

29 Chamber of Commerce

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Sample Grain a Specialty

BRANCH OFFICES AT CHICAGO, MINNEAPOLIS

ESTABLISHED 1864

I. H. Lowry & Co.

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Branch Offices at CHICAGO, MINNEAPOLIS

We solicit your consignments

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DETROIT, MICH.

Merchants Exchange
DECATUR, ILL.

Consignments Solicited.

Ask for our Bids and Quotations

CAUGHEY & CARRAN

DETROIT, MICH.

Grain and Seed Merchants and Commission

OUR SPECIALTY: OATS AND CLOVER SEED

We handle Beans, Barley, Rye, Corn, Wheat. Try us. Liberal
advances.

OFFICES: 620 to 624 Chamber of Commerce

ELEVATOR and SEED HOUSE: Corner 14th and Baker Sts.

L. A. PARSONS

H. M. HOBART

Parsons & Hobart

GRAIN, BEANS and HAY

CONSIGNMENTS SOLICITED

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Office: 406 Chamber of Commerce
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ILLINOIS

BATTLE CREEK

McLane, Swift & Co.,

Buyers
of

GRAIN

Battle Creek,
Mich.

CORRESPONDENCE FROM EASTERN BUYERS SOLICITED.

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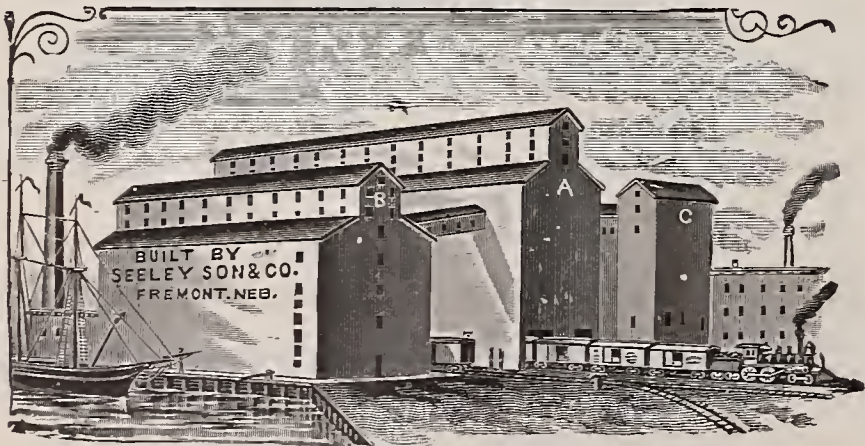
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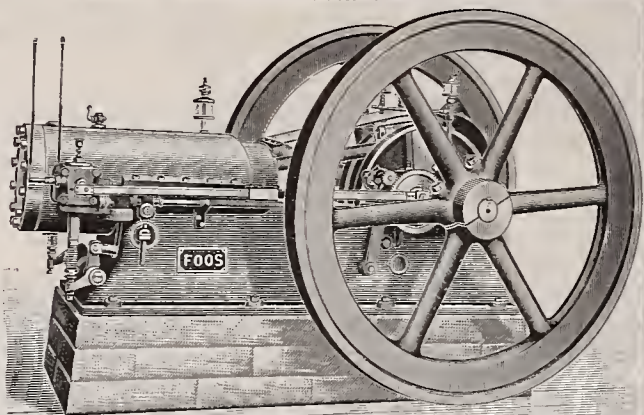
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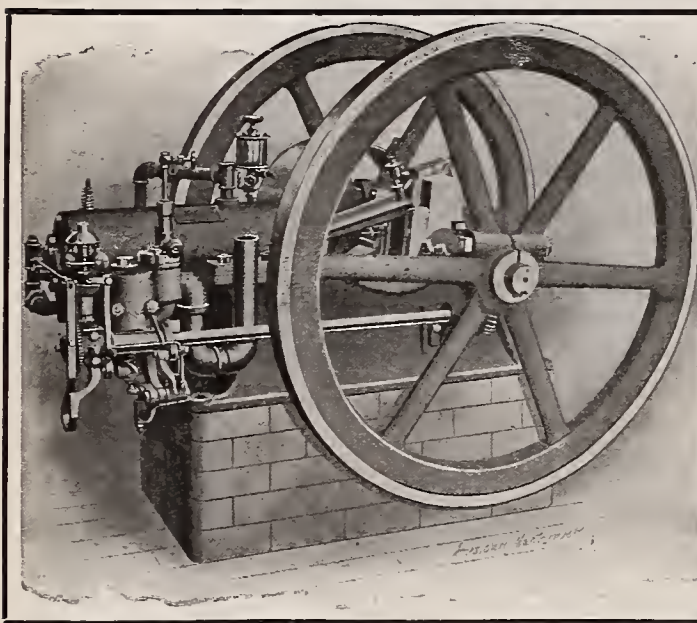
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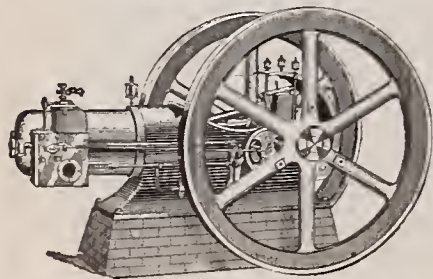
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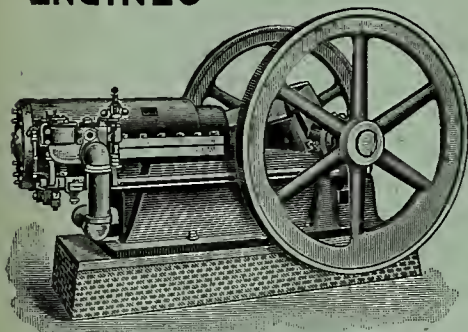
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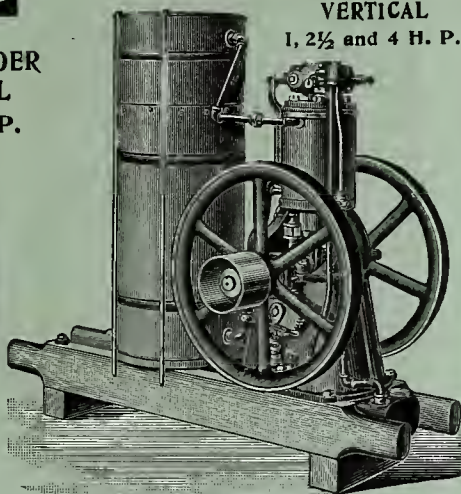
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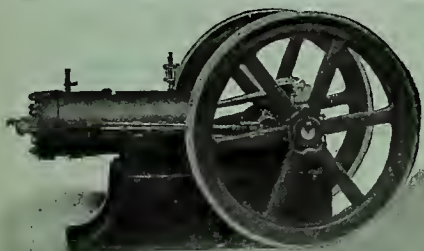


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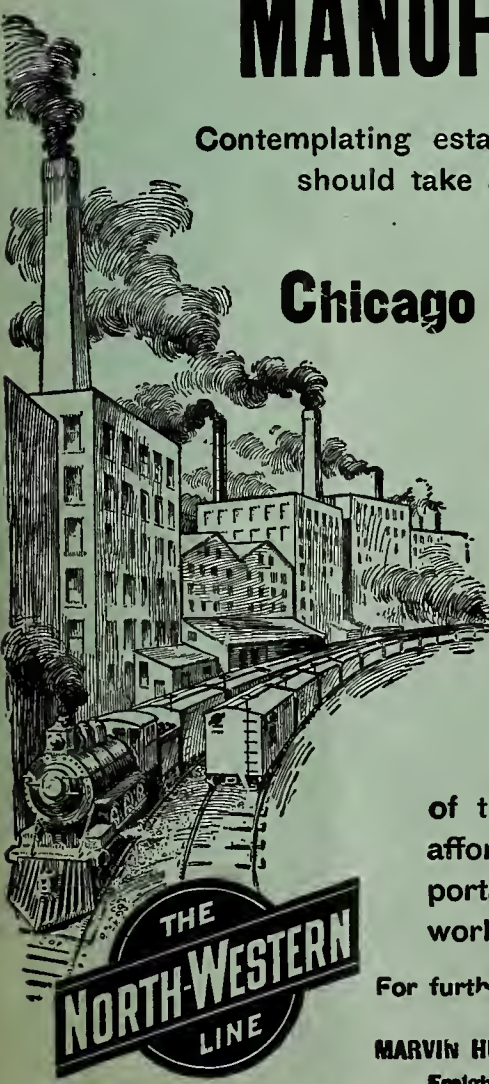
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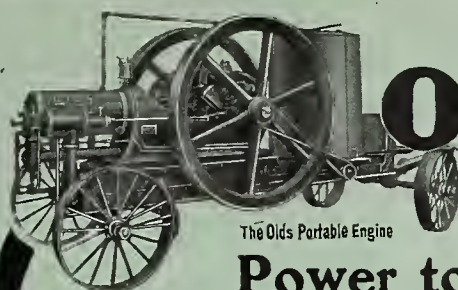
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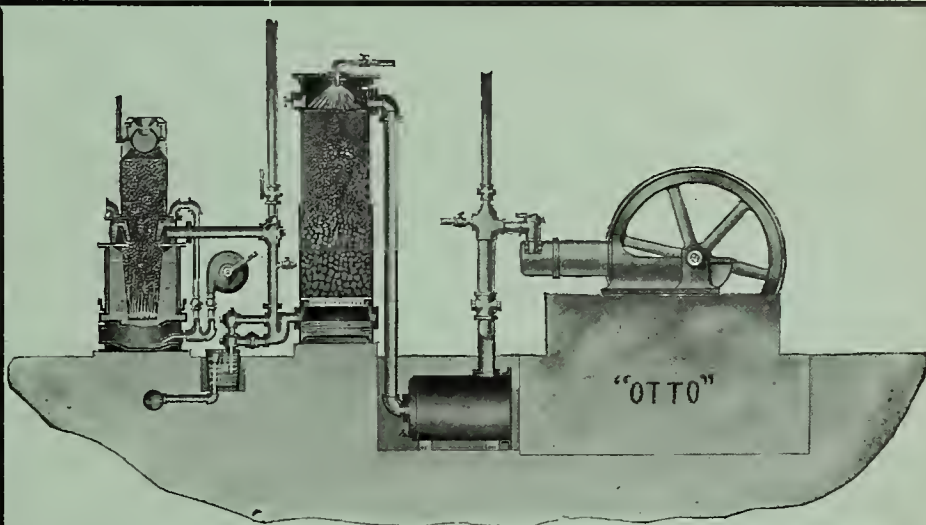
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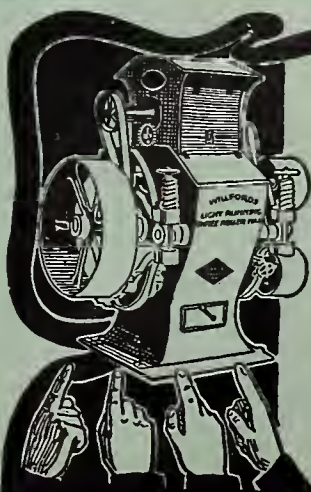
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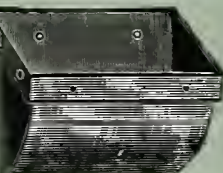
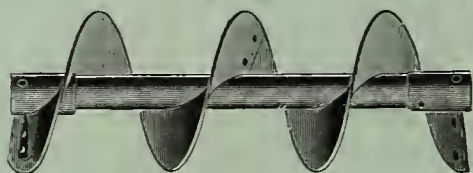


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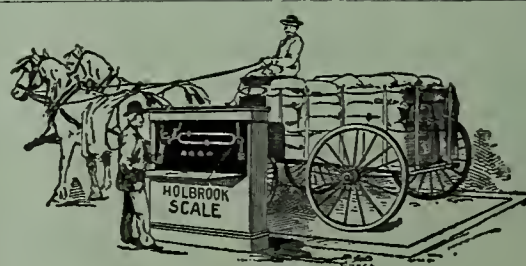
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